Appendix C – Accident Prevention Plan (APP)

FINAL

APPENDIX C – ACCIDENT PREVENTION PLAN

MEC REMEDIATION, ALPHA AND BRAVO AREAS
McClellan Reuse Areas
Anniston, Alabama

Prepared for
The Anniston Calhoun County Fort McClellan Development Joint Powers Authority

Prepared by
ECC

April 2006

APPENDIX C – ACCIDENT PREVENTION PLAN TABLE OF CONTENTS

LIST OF ATTACHMENTS

LIST OF TABLES

LIST OF ABBREVIATIONS AND ACRONYMS

AALF	Anomaly Accountability Log Form
AHA	Activity Hazard Analysis
ANSI	American National Standards Institute
AOC	Areas of Concern
APP	Accident Prevention Plan
ARAR	Applicable or Relevant and Appropriate Requirement
Bgs	Below Ground Surface
BIP	Blow-in-place
BRAC	Base Realignment and Closure
CA	Corrective Action
CEHNC	U.S. Army Engineering and Support Center, Huntsville
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIH	Certified Industrial Hygienist
CO	Contracting Officer
COR	Contracting Officer Representative
CPR	Cardiopulmonary Resuscitation
CQCM	Corporate Quality Control Manager
CRZ	Contamination Reduction Zone
CWM	Chemical Warfare Materiel
dBA	Decibels
DDESB	Department of Defense Explosives Safety Board
DFW	Definable Feature of Work
DGM	Digital Geophysical Mapping
DGPS	Differential Global Positioning System
DID	Data Item Description
DMM	Discarded Military Munitions
DOD	Department of Defense
DQO	Data Quality Objective
ECC	Environmental Chemical Corporation
EE/CA	Engineering Evaluation/Cost Analysis
EOD	Explosive Ordnance Disposal
EMR	Experience modification rate
EPP	Environmental Protection Plan
ESS	Explosives Safety Submission
EZ	Exclusion Zone
FCA	Function Check Area
ft	Feet
FUDS	Formerly Used Defense Site
GEOQCM	Geophysical Quality Control Manager
GIS	Geographical Information System
GPS	Global Positioning System
HAZWOPER	Hazardous Waste Operations
HEAT	High-Explosive Anti-Tank
HIPO	High Potential Incidents
HMIS	Hazardous Materials Identification System
hr	Hour
HTRW	Hazardous Toxic Radiological Waste
IAW	In Accordance With
JPA-MES	Joint Powers Authority – Matrix Environmental Services
JRA	Joint Reuse Authority
Kv	Kilovolt
lbs	Pounds

LIST OF ABBREVIATIONS AND ACRONYMS

MC	Munitions Constituents
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
MEC/UXO	Munitions and Explosives of Concern/Unexploded Ordnance
MGFD	Munition With the Greatest Fragmentation Distance
MMRP	Military Munitions Response Program
MOFB	Miniature Open Front Barricade
mph	miles per hour
MR	Munitions Response
MRA	Munitions Response Area
MRS	Munitions Response Site
MSD	Minimum Separation Distance
MSDS	material safety data sheet
mV	milliVolt
NCP	National Contingency Plan
NCR	Nonconformance Report
NEW	Net Explosive Weight
NFPA	National Fire Protection Agency
NTCRA	Non Time Critical Removal Action
OE	Ordnance Explosive
OE/MEC	Ordnance Explosive/Munitions and Explosives of Concern
OSHA	Occupational Safety and Health Administration
PDA	Personal Digital Assistant
PgM	Program Manager
PM	Project Manager
POC	Point of Contact
PPE	Personal Protective Equipment
QA	Quality Assurance
QC	Quality Control
QCM	Quality Control Manager
QCP	Quality Control Plan
Q-D	Quantity – Distance
QIP	Quality Improvement Process
RA	Removal Action
RCRA	Resource Conservation Recovery Act of 1976
RCWM	Recovered Chemical Warfare Materiel
RIR	Recordable Incident Rate
ROE	Right of Entry
ROPs	Rollover Protection Structure
SOP	Standard Operating Procedure
SOW	Scope of Work
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plan
SUXOS	Senior Unexploded Ordnance Supervisor
SZ	Support Zone
TBC	To Be Considered
TO	Task Order
USACE	U.S. Army Corps of Engineers
USATCES	U.S. Army Technical Center for Explosives Safety
UXO	Unexploded Ordnance
UXOQCS	Unexploded Ordnance Quality Control Specialist
UXOSO	Unexploded Ordnance Safety Officer
WNV	West Nile Virus
WP	Work Plan

MEC REMEDIATION, ALPHA AND BRAVO AREAS
MCCLELLAN REUSE AREAS
ANISTON, ALABAMA

1.0 SIGNATURE SHEET

This appendix provides ECC's Accident Prevention Plan (APP) and Site Safety and Health Plan (SSHP) for the MEC Remediation at the McClellan Response Areas, Anniston, Alabama.

I hereby certify that the enclosed APP, shown and marked in this submittal, has been prepared in accordance U.S. Army Corps of Engineers (USACE) Safety and Health Requirements Manual EM 385-1-1 (3 Nov 2003).

Plan Preparer:

M Johnshoy CIH,CSP

Marcus Johnshoy
2006.04.21
11:59:37 -06'00'

303-298-7607

Marcus Johnshoy — Date — Phone Number
Certified Industrial Hygienist

Plan Concurrence:

Peter W. Vernon

Digitally signed by Peter W. Vernon
DN: CN = Peter W. Vernon, C = US, O = ECC
Date: 2006.04.21 11:07:20 -04'00'

508-922-2682

Peter Vernon, CSP, CHMM, CPEA — Phone Number
Health and Safety Manager — Date

Plan Approval:

Richard Gioscia

Rich Gioscia
2006.04.21 13:22:45 -06'00'

303-898-8859

Richard Gioscia, CIH, CSP, CHMM — Date — Phone Number
Vice President, Environment, Safety and Quality

2.0 INTRODUCTION

This APP has been prepared by ECC, to perform MEC Remediation at the Alpha and Bravo Areas at the McClellan Response Areas (MRAs), Anniston, Alabama. This work is being conducted for the Joint Powers Authority (JPA), who is facilitating the reuse of McClellan. Work conducted under this contract will be performed in accordance with applicable Federal, State, and local safety and occupational health laws and regulations including: Occupational Safety and Health Administration (OSHA) standards (including 29 Code of Federal Regulation (CFR) 1910 and 29 CFR 1926). The *USACE Safety and Health Requirements Manual* (EM 385-1-1, 3 Nov 2003) and *USACE Data Item Description, Accident Prevention Plan*, MR-005-06 (1 Dec. 2003) are also used as general guidance but are not specified requirements. The contents of the APP are subject to review and revision, as new information becomes available.

2.1 Purpose

This APP has been developed based on known and anticipated potential hazards that may arise during performance of the Scope of Work (SOW) provided in this Work Plan.
At least one copy of the APP will be located in a readily accessible on-site location during all field activities. The APP consists of several components that together define the Safety and Health program as outlined in Section 2.4.

2.2 Application

The requirements established by this APP are mandatory and apply to all ECC employees, its subcontractors, and any other personnel entering designated work areas at the project site during active field operations. All employees, subcontractors, and visitors shall sign-off on the APP Compliance Agreement Form (provided at the end of this document in Attachment 8) after receiving training on this plan and before working at the site. In addition, ECC shall provide a copy of this plan, if requested, to any authorized personnel who must enter the regulated work area.

2.3 Revisions

Changes in the scope of work, field changes or unanticipated site conditions may require APP modification and approval in order to retain field safety compliance with contract requirements and OSHA regulations. All changes to the APP or SSHP shall be prepared and/or reviewed by ECC's Unexploded Ordnance Safety Officer (UXOSO) and submitted to the ECC Project Manager (PM), ECC Corporate Health and Safety Manager and Matrix Environmental Services (MES) QA Officer.

2.4 Components of the APP

Table 1. APP Document Outline

Document	Purpose
Accident Prevention Plan (APP)	▪ The APP provides general safety and health requirements and practices.
Attachment 1 - Site Safety and Health Plan (SSHP)	▪ The SSHP contains task order-specific health and safety requirements that meet SSHP requirements per OSHA and EM 385-1-1-USACE DID MR-005-06 (1 Dec. 2003).
Attachment 2 - Activity Hazard Analysis (AHA)	▪ These AHAs addresses specific hazards and precautions for major activities of the project task order.
Attachment 3 – Site maps	▪ Due to the nature of this project, ECC will establish exclusion zones each day in the work area(s). Site maps are located in Appendix A of the Work Plan.
Attachment 4 - Emergency Contact Numbers and Hospital Route Map	▪ This attachment provides emergency contact numbers and the route map to the local hospital.
Attachment 5 - ECC Corporate Standard Operating Procedures (SOPs)	▪ Attachment 5 includes a listing of ECC SOPS referenced in the APP and SSHP. ▪ Project applicable SOPs are included in Appendix F of the Work Plan.
Attachment 6 - Supplemental Plans	▪ Supplemental plans are not required for this task order.
Attachment 7 - Resumes	▪ Resumes for key project personnel are provided in the Work Plan, Appendix E.
Attachment 8 - Site Safety and Health Forms	▪ Forms referenced throughout the APP and SSHP are attached at the end of this document in Attachment 8. These forms are to be used as instructed by the UXOSO.

3.0 BACKGROUND INFORMATION

ECC will conduct Munitions and Explosives of Concern (MEC) remediation in the Alpha and Bravo Areas at McClellan Reuse Areas (McClellan), Anniston, Alabama, formerly known as Fort McClellan. This work supports continuing MEC site characterization activities associated with the transfer of Army property to the JPA, the local redevelopment authority. Figure 1-1 in Appendix A shows the location of McClellan. The property was previously used by the U.S. Department of Defense (DoD) as an active military installation. The property was closed and transferred to the JPA under federal authorities created for Base Realignment and Closure (BRAC).

3.1 Project Description

See Attachment 1 – SSHP, Section 1.0 – Site Description for the project-specific scope of work.

3.2 Key Personnel

See Attachment 1 - SSHP, Section 3.0 for a listing of the project's key personnel.

3.3 Contractor Safety Information

As shown in the following table, ECC has an excellent safety record. ECC's experience modification rate (EMR) is less than 1.0, indicative of fewer injuries and claims compared to other construction and environmental remediation companies. The OSHA Recordable Incident Rate (RIR) is also less than the BLS 7.1 national average for Construction (NAICS 23) and the Environmental Remediation national average of 6.3 (NAICS 5629).

Table 2. Reuse Areas Safety Experience Rates

Year	EMR	RIR
2005	0.72	0.60
2004	0.69	1.42
2003	0.68	0.31
2002	0.66	2.15
2001	0.90	2.03
2000	0.80	0.66

Copies of ECC's OSHA Form 200/300 for the above referenced years are available on request.

4.0 STATEMENT OF SAFETY AND HEALTH POLICY

ECC

Environmental, Safety, and Quality Policy

Fundamental goals of ECC are to ensure the health, safety, and well-being of our co-workers and the communities in which we work, to protect and enhance the environment, and to provide our clients with valued and quality services.

To achieve these goals, we commit to do the following:

- **Implement a work process that emphasizes management leadership, employee involvement, worksite analysis, and hazard prevention.**
- **Incorporate pollution and loss prevention principles into our operations.**
- **Thoroughly plan and execute our work accordingly.**
- **Ensure that employees and subcontractors are qualified and competent.**
- **Comply with company procedures, contract requirements, and applicable laws, standards, and regulations.**
- **Recognize outstanding team and individual performance.**
- **Exceed the expectations of our clients**
- **Monitor and optimize the effectiveness of our management system.**

With everyone's participation, we will achieve these goals and fulfill our commitments within a work culture that strives for zero incident performance and continuous improvement.

Manjiv S. Vohra, PE	August Ochabauer	Richard Gioscia, CIH
President & CEO	Vice President, Operations	Vice President, ESQ

2/28/2005

5.0 RESPONSIBILITIES AND LINES OF AUTHORITY

This section describes the ECC and subcontractor personnel responsibilities and lines of authority for project safety. Resumes of key safety personnel are provided in Appendix E of the Work Plan.

5.1 Health and Safety Responsibilities

The following description of Key Project Personnel describes their roles and responsibilities.

5.1.1 ECC Project Manager

The ECC PM represents ECC in all aspects of its work under the contract and is responsible for the following:

- Providing leadership by, among other things, setting an example for all site personnel through actions and words regarding the importance of proper health and safety practices and holding project staff accountable for safety performance;
- Coordinating all work performed by ECC and its subcontractors for the project;
- Ensuring the APP is approved prior to commencing field operations;
- Ensuring all required personal protective equipment (PPE), other types of equipment and instruments, safety incentives, and other safety-related items are budgeted and provided ;
- Ensuring that subcontractor Statements of Work include appropriate safety provisions and expectations;
- Ensuring that safety and health requirements are covered during kickoff meetings;
- Participating in the investigation of, and ensuring that unplanned events, high loss potential incidents, and accidents are properly reported to JPA and within ECC's health and safety reporting network;
- Notifying the Corporate Health and Safety Manager of any changes in the scope of work or site conditions, and ensuring that the APP is updated to address new hazards;
- Immediately stopping ECC operations in the event of an emergency or serious hazard, in order to protect personnel and the environment; and
- Preparing and submitting required work progress reports.

5.1.2 ECC Corporate Health and Safety Manager

The ECC Corporate Health and Safety Manager (HSM) will oversee the overall project health and safety structure and implementation. Responsibilities include the following:

- Review and sign the APP prior to submittal;
- Develop and/or review AHAs prepared for the project;
- Approve the appointment of the UXOSO and ensure that he/she has the appropriate training and competencies to perform the duties;
- Participate in quality control planning such as development of Quality Control Plans, safety and health checklists, and perform design and system safety analyses as appropriate;
- Provide safety and health expectations and flow down requirements for subcontractor statements of work;
- Be available on a 24-hour basis for consultation with UXOSO during on-site emergencies or as needed;
- Provide on-site consultation as needed to ensure the APP is fully implemented;
- Coordinate any modifications to the APP with the UXOSO, the ECC PM, and JPA, as required;
- Provide continued support for upgrading and/or downgrading the level of personal protection;
- Participate in the investigation of unplanned events, high loss potential incidents, and accidents; and
- Assist in development of on-site training, which will be provided by the UXOSO.

5.1.3 Program UXO Safety Officer

- The Program UXOSO is responsible for explosives-related safety issues. This individual is responsible within ECC for conducting quarterly safety audits of the project safety staff and represents the HSM in explosives safety matters. His responsibility includes:
- Review capacity for explosives safety submissions (ESSs);
- Quarterly safety audits of the on-site safety staff;
- Coordination with the HSM in matters of SSHP modification; and
- Support the on-site UXOSO as a subject matter expert on questions concerning explosives safety matters and procedures.

5.1.4 UXO Safety Officer (UXOSO)

The UXOSO implements the task-specific SSHP. In accordance with USACE EM 385-1-1 and USACE Data Item Description (DID), Personnel/ Work Standards, OE-025.02 (2 Feb. 2004), the UXOSO will have completed the 10-hour OSHA Construction Safety course (or an equivalent course applicable to the work to be performed) within the past 3 years. This individual will have the specific training, knowledge, and experience necessary to implement the SSHP and verify compliance with applicable safety and health requirements. This individual will be able to perform all functions enumerated for UXO Sweep Personnel and UXO Technicians I, II, and III. In addition, the UXOSO will have the ability to implement the approved MEC and explosives safety program in compliance with all DOD, Federal, State, and local statutes and codes. The UXOSO will have the authority and is responsible for the following actions:

- Be present during operations to implement the SSHP;
- Inspect site activities to identify safety and occupational health deficiencies and correct them;
- Coordinate changes/modifications to the SSHP with the HSM, site superintendent, and contracting officer;
- Conduct project specific training;
- Ensure all field personnel, including any subcontractor personnel, assigned to the project have satisfied requirements for training and medical surveillance as specified by 29 CFR 1910.120, and that records of training and medical approval are available and maintained for each person;
- Oversee compliance with the APP procedures and OSHA regulations through daily, informal inspections;
- Assist and represent the project HSM in on-site training;
- Report to the site on a full-time basis for the entire duration of field activities;
- Serve as a member of the QC staff on matters relating to safety and health;
- Stop work if unacceptable safety and health conditions exist, and take necessary action to re-establish and maintain safe working conditions;
- Consult and coordinate modifications to the APP with the HSM, the ECC PM, and JPA-MES PM;
- Serve as a point of contact for all UXO work and safety policies.
- Establish and ensure compliance with all site specific safety requirements for MEC operations;
- Analyze MEC operational risks, hazards, and safety requirements;
- Enforce personnel limits and safety exclusion zones for MEC clearance operations;
- Conducting safety inspections to ensure compliance with MEC and explosives safety codes;
- Operate and maintain air monitoring equipment required at a site for airborne contaminates and prepare air monitoring reports;
- Ensure all site personnel and visitors are properly trained on site hazards; and

- Maintain all required safety and health records (e.g., OSHA 300 Logs, incident/accident reports, training certificates and qualifications, equipment checklists, safety plans, air monitoring data and reports, etc.) throughout the life of the project.

5.1.5 UXO Quality Control Specialist (UXOQCS)

The UXOQCS will be responsible for establishing and ensuring compliance with site control procedures and the Project Quality Control Plan (QCP). UXOQCS responsibilities will include the following:

- Conduct and/or document daily site safety and health inspections and document in the daily QC log;
- Conduct QC meetings and training sessions;
- Assure all personnel on site are trained on the provisions of the safety and health plans, as well as other necessary work plans;
- Review project submittals;
- Report equipment malfunctions and deficiencies to the Senior Unexploded Ordnance Supervisor (SUXOS) and UXOSO;
- Conduct, or designate an appropriate QC representative, dig QC in conjunction with NAEVA;
- Provide daily QC reports to JPA; and
- Ensure the scope of work and specifications are followed and met.

5.2 Field Personnel

Field Personnel will be responsible for understanding and following the APP and performing their work in a safe and responsible manner. Specific responsibilities will include the following:

- Act in a responsible manner at all times in order to prevent incidents, injury, and/or exposure to themselves and their co-workers;
- Report any and all incidents, including near misses, to the Team Leader, SUXOS or UXOSO;
- Attend and participate in all daily health and safety tailgate meetings;
- Participate in the development of Activity Hazard Analyses (AHAs) as required, and follow the provisions as outlined in the final AHA.
- Follow instructions and directions of the UXOSO and SUXOS;
- Utilize the PPE provided and specified for use;
- Following all field safety procedures for safe work practices, (e.g., the buddy system, communication, site control, decontamination, evacuations, and related emergency procedures);
- Perform only those tasks they have been instructed to perform if they are trained, qualified, and capable of performing safely at the time of assignment;
- Report any personal condition that could affect their safety and/or the safety of co-workers (e.g., fatigue, drowsiness, severe illness, impairment by prescription medications, influence by drugs and alcohol, emotional stress, or other condition); and
- Ensure that no work tasks are performed in deviation from the APP and/or the initial instructions of the UXOSO or SUXOS.

5.3 Subcontractors

Subcontractors that perform work for ECC under this APP will be responsible for the health and safety of their employees. The presence of a UXOSO and the implementation of the APP do not relieve subcontractors of their responsibilities as employers. Specific responsibilities of subcontractors will include:

- Comply with the requirements of their SOW;
- Participate in development of AHAs for their work activities;
- Maintain a safe and healthy work environment;

- Compliance with the APP, contract requirements, laws, regulations, and EM 385-1-1;
- Review the APP to ensure that the health and safety requirements of their specific tasks are satisfied;
- Provide trained and experienced workers for the specific work activities;
- Participate in the Daily Safety Tailgate Meetings;
- Identify additional training needs for unique tasks;
- Enforce company- and project-specific rules and procedures during work activities;
- Report all incidents and participate in the investigations;
- Participate in routine site inspection activities;
- Ensure all equipment brought to the site is in proper working order, is routinely inspected and maintained in safe working order; and
- Set a positive safety example for all project staff.

5.4 Site Visitors

Site visitors will:

- Participate in a site briefing before leaving the administrative office or site entry point;
- Follow all site rules and instructions;
- Be escorted at all times by a qualified UXO Technician II unless otherwise approved by the UXOSO; and
- Wear PPE provided.

Conformance of everyone with these responsibilities is necessary to achieve the goals of the APP. Failure to do so could result in removal from the site.

5.5 Lines of Authority

The UXOSO has a technical and administrative reporting relationship to the Program UXOSO and HSM, who reports directly to the ECC Vice President for Environment, Safety and Quality. The reporting relationship provides for access to safety and health expertise as well as an independent reporting and line of communication. The UXOSO has a functional reporting relationship to the PM, providing the PM and team with a resource for safety and health support for the project.

6.0 SUBCONTRACTORS AND SUPPLIERS

The following sections describe how ECC will manage the health and safety aspects of it's suppliers and subcontractors.

6.1 Identification of Subcontractors and Suppliers

Subcontractors are identified in Attachment 1 - SSHP, Section 1.0.

6.2 Managing Subcontractors

Subcontractor safety is critical to successful performance on projects. When onsite subcontractor labor and/or services are needed to perform High Potential Incident (HIPO) activities, part of the selection criteria may include an evaluation of the subcontractor's safety history and program. Subcontractors are expected to comply with the provisions of this APP, the SSHP, and all AHAs. Their activities will be reviewed as part of regular site inspections and audits. Their safety performance on the job will be monitored and substandard practices and conditions will be addressed immediately. Furthermore, subcontractor safety performance will be evaluated in the ECC procurement system where the information can be used for future subcontracting decisions.

6.3 Supplier Control

All suppliers of safety-related items are required to provide approved and/or appropriate materials for the project, and meet the specifications, testing criteria or third party certifications. These criteria are identified in the SOW, QCP, and APP or are recommended by the UXOSO.

For safety-critical items, specifications will be identified and receipt inspections will be conducted and documented.

Each hazardous material supplied for site use will be accompanied by a Material Safety Data Sheet (MSDS) and will be added to the site list of hazardous materials. MSDSs and the list will be maintained by the UXOSO.

Health and safety related supplies will be obtained from recognized safety supply vendors and will meet specified OSHA or consensus standards. These items will be inspected upon receipt by the UXOSO and/or the UXOQCS.

7.0 TRAINING REQUIREMENTS

The following two sections detail project training and requirement and visitor indoctrination.

7.1 Project Training Requirements

The training listed in Table 3 will be provided to project participants as noted. In addition to the topics listed, the UXOSO, in cooperation with the SUXOS, will identify other topics and work tasks to be included in the training requirements. These special requirements will be noted in the AHAs. All required training will be documented and this training documentation will be maintained onsite.

Table 3. Project Training Requirements

Topic	Description	Personnel
General Training		
Accident Prevention Plan	Review of APP requirements during site orientation, before commencement of field work.	All project personnel
Site Safety and Health Plan	Training on site-specific hazards and control requirements before commencement of field work. Includes training in proper use and care of PPE.	All project personnel
Activity Hazard Analysis	Review of AHAs, controls and training requirements for a specific phase or activity prior to commencement of activity.	Workers, supervisors and oversight personnel engaged in the activity
Daily Safety Briefing	In addition to plan-of-the-day and daily hazard reminders often used to cover a specific topic; provide refresher training on various issues or changes in hazards, controls or procedures.	All field workers, supervisors, field oversight personnel, and visitors
Emergency Action Plan	Cover the roles, responsibilities, recognition of emergency conditions, reporting and notification, evacuation and other procedures.	All project personnel, with detailed information on procedures for workers with special responsibilities
Hazard Communication	Discuss requirements for MSDSs, labels; hazards of site materials and controls; location of and access to inventories and MSDSs.	All project personnel potentially exposed to hazardous materials
Fire Extinguisher	Provide general education on selection, distribution, and proper use of fire extinguishers.	All project personnel
Special Training		
First aid/ CPR	Provide Red Cross, National Safety Council or other authorized course with current refresher.	At least 2 project personnel

7.2 Visitor Indoctrination Policy

All site visitors will be required to review the daily tailgate safety issues and sign the APP Compliance Agreement Form. At a minimum, all visitors must be informed of the anticipated hazards and PPE requirements, designated work zones, escort procedures, and emergency procedures by the UXOSO.

8.0 SAFETY AND HEALTH INSPECTIONS

The following two sections describe general and external inspection procedures to be followed for this project.

8.1 General Inspection Procedures

Table 4 lists the general inspection requirements for this Project. Findings that represent deficiencies in the implementation of the APP/SSHP, EM 385-1-1 or EP-385-1-95a and which cannot be corrected immediately will be added to the Tracking Log which will be posted in the administrative area and updated on a daily basis.

Additional specific inspection requirements may be necessary and will be included in the AHA, QCP, or site standard operating procedures, where applicable.

Table 4. General Inspection Requirements

What	Who	When	Documentation
General Site Conditions	UXOSO	Daily	Log Book
	UXOSO	Weekly	Health and Safety Site Inspection Form
	Project Manager	Monthly	Health and Safety Site Inspection Form and Non-Conformance Report, cc: UXOSO, PgM, HSM
	Project UXOSO	Quarterly	Health and Safety Site Inspection Form
Detection Equipment	UXOQCS/GeoQC	Daily	QC Log
Tools and Equipment	Users	Daily	None. Tag defective items out of service
MEC Site Specific Hazards and Excavations	UXOSO or designee	Daily	If greater than 4 feet deep, use Daily Excavation / Trench Inspection Form If less than 4' deep: log book.
Personal Protection Equipment	UXOSO	Initial	Log book

8.2 External Inspections and/or Certifications

- In the event that a regulatory agency arrives on site to conduct an inspection, the project manager and one of the following individuals will be contacted immediately:
- MES PM and JPA
- UXOSO
- Vice President, ESQ
- General Counsel

9.0 SAFETY AND HEALTH EXPECTATIONS, INCENTIVE PROGRAMS, AND COMPLIANCE

This section describes the safety goals for this project, the safety incentive program, disciplinary procedures, and management accountability implemented to ensure the safety goals are met.

9.1 Safety Goals for this Contract

The safety objectives and goals for this task are many and include the following:

- Conduct all work in accordance with OSHA and other applicable safety regulations.
- Complete the project with zero OSHA recordable injuries and illnesses.

- Complete the project with zero high-loss potential incidents.
- Provide prompt identification and correction of health and safety concerns.
- Obtain 100% participation of all employees in the maintenance of a safe work environment.

9.2 Safety Incentive Program

ECC provides a safety incentive program to all project employees working at an ECC project site. A project employee is defined as a non-exempt, hourly employee hired for the duration of the project. The Employee Safety Incentive Program is part of ECC's Corporate Health and Safety SOPs. A copy of this SOP is included in Appendix F of the Work Plan. Additional safety incentive programs will be evaluated and established as appropriate relative to safety participation and awareness efforts of the employees. ECC will work with subcontractors to establish an appropriate incentive plan for subcontractor employees.

9.3 Disciplinary Procedures

All employees will be required to comply with APP policies and procedures. ECC reserves the right to discipline and/or terminate (when justified) employees at its sole discretion for serious safety infractions. Discipline will be in accordance with the Disciplinary Policy described in the ECC Employee Handbook. ECC expects that all subcontractors will exercise their right to discipline and/or terminate its employees at its sole discretion when justified. ECC retains the right to deny access to the site to any individual not sufficiently compliant with safety requirements.

9.4 Manager and Supervisor Accountability

ECC managers and supervisors are held accountable for safety, not only for providing a safe work environment (through proper staffing, training, and equipment availability), but also through the example that they set. Annual performance reviews and incentive plans for managers and supervisors include assessments of project safety performance as well as the individual's demonstrated attitude toward safety.

10.0 ACCIDENT REPORTING

The next three sections describe accident reporting procedures.

10.1 Incident Summary

The UXOSO will provide a monthly incident summary to the JPA. The summary will include the person-hours worked during the month and a list of incidents, including:

- OSHA Recordable Injuries or Illnesses (e.g., medical treatment beyond first aid)
- Any injuries to authorized visitors;
- Fires and explosions of any magnitude
- Reportable spills and environmental releases
- Tool or equipment failure which results or could result in serious injury
- Property damage, equipment damage, environmental damage resulting in a loss of more than $500.00 ($2,000 for client reports)
- Any event, which under slightly different circumstances, could have resulted in one of the above.

The SUXOS, with the assistance of the UXOSO will investigate the incident and complete all necessary incident reports and logs, including the ECC Incident Report and client or regulatory agency reports.

All incidents, regardless of severity, require some type of investigation and corrective action. Immediate and basic causes will be identified and evaluated, and used to support the recommended corrective actions.

A project-specific OSHA 300 Log (Log of Work-Related Injuries and Illnesses) will be kept at the job site. Minor injuries requiring only first aid will be recorded on a project-specific First Aid Log. From February 1 through April 30 of each year, Form 300A (Summary of Work-Related Injuries and Illnesses) will be posted on the project Safety and Health Bulletin Board. These forms are available at the following web site: http://www.osha.gov/pls/publications/pubindex.list

10.2 Immediate Notification of Major Accidents

The MES PM and JPA will be verbally notified immediately and will receive a written notification within 24 hours for incidents.

11.0 MEDICAL SUPPORT

This section details medical support that will be available for the project.

11.1 Onsite First Aid Support

Onsite medical support during project execution will be available from two or more individuals who are trained in First Aid and Cardiopulmonary Resuscitation (CPR) and blood borne pathogens. Onsite first aid kits will meet the requirements of EM 385-1-1 (03.B). First aid kits shall be Type III, 16 unit kits, including one pocket mouthpiece or CPR barrier. Kits will be checked prior to use, and at least weekly when work is in progress to ensure that contents are replaced as used. If a unit is available, personnel will be trained in the use of the Automated External Defibrillator (AED).

11.2 Hospital and Emergency Route Map

An emergency route map and local emergency medical support contact information is contained in Attachment 4. Local hospital emergency rooms must be notified of the potential types of injuries and the contaminants involved.

11.3 Medical Transport of Employees and Case Management

For non-emergency injuries, a local clinic has been identified and its location and phone number are listed in the SSHP, Section 13.0. Also, The WorkCare Occupational Health Nurse will be contacted prior to transporting the injured worker to the clinic. The number to WorkCare is also provided in Section 13.0 of the SSHP. The WorkCare provider will attempt to contact the clinic prior to the arrival of the patient to establish oversight of case management. Under no circumstances will an injured employee drive unescorted to a hospital, clinic, etc. An employee with minor injury may be transported by car after first aid treatment is given. The UXOSO or other project management personnel will transport the injured person to the facility. The employee who transports the injured person will be trained in first aid and CPR whenever possible. When the injury is severe, or when in doubt concerning the severity of injury, the employee will be transported by ambulance.

Injured employees that require medical treatment or are taken to a doctor, hospital, clinic, etc., will not be allowed to resume work without a written return to work statement from the treating physician. This statement will supply a medical diagnosis of the problem, the date of return to work, and work limitations. Should a return to work statement such as "light duty" be given, the treating physician will be contacted to determine the specific limitation. ECC will make an assessment of work the employee normally performs whether or not the limitation interferes with the employee's normal work.

Whenever there are questions on the appropriateness of the diagnosis or prescribed course of treatment, WorkCare will be contacted to arrange for a second opinion.

12.0 PERSONAL PROTECTIVE EQUIPMENT

The purpose of PPE and clothing is to protect individuals from chemical and physical hazards.

13.0 HAZARD ASSESSMENTS

Specific work tasks with unique hazards and/or PPE requirements will be evaluated or reevaluated prior to beginning work. This task review will be led by the HSM and the UXOSO, and will include knowledgeable individuals such as the worker(s) and the supervisor. PPE requirements, based on this assessment, will be included in Section 5.0 of the SSHP or in the AHA for the specific task. All workers must be trained in the requirements of the APP, SSHP and the applicable AHAs prior to beginning work. The required PPE may be changed by the UXOSO, based on the results of additional air monitoring, or on task-specific needs. Downgrades will require the approval of the HSM unless otherwise permissible by the SSHP.

13.1 Personal Protective Equipment Inspection and Care

Inspection and care of PPE are covered in the ECC Corporate SOP HS-012, included in the Work Plan, Appendix F.

13.2 Personnel Decontamination

All personnel, clothing and equipment leaving the established exclusion zone areas will be decontaminated within the boundaries of the established Contamination Reduction Zone (CRZ). The decontamination procedures will be an organized process with a series of stations to provide the maximum level of decontamination. Depending on the contaminants involved, and the potential risks, the decontamination process may range from a simple removal of gross, visible debris from work clothing to a more intensive wet rinsing of protective coveralls. Specific decontamination procedures will be modified as necessary following establishment of work zones and observations of the work tasks. All contaminated PPE, and solutions used for decontamination, will be disposed of properly.

Standard personnel decontamination procedures include the following:

- Level D (e.g., leaving the site or support zone)
- Ensure no gross contamination remains on work boots
- Wash hands, face, arms, and other exposed skin.

13.3 General Site Rules

The following site rules are applicable to all ECC projects.

- Eat, drink, use gum or tobacco products, or apply cosmetics in designated areas only.
- Do not smoke in government buildings and near sources of ignition. Smoking is not allowed within the EZ. Areas shall be marked where smoking is permitted.
- Wash hands, face, and any exposed skin during decontamination, before eating, drinking or using tobacco products, and at the end of each shift.
- Participate in tailgate safety meetings.
- Continually observe work location and be alert to changes that may affect safety.
- Only enter regulated work areas as instructed by the SUXOS, only at designated control points.
- Avoid direct contact with contamination by not purposefully walking, touching, or contacting any obviously contaminated surfaces.
- Immediately report incidents, accidents, near misses, or unusual situations to UXOSO or the SUXOS.
- Use PPE provided, and as instructed by the UXOSO.
- Do not wear or carry personal items into regulated work area.
- Avoid hand-to-mouth or hand-to-face activities.

- Inspect instruments and safety equipment/vehicles and construction equipment prior to use.
- Minimize the number of personnel in a work area to reduce potential exposures.
- Use the buddy system when entering an EZ and be continually aware of each other's location.
- Work within physical and mental limits.
- Take adequate rest breaks and replace body fluids (water and electrolyte) continuously.
- At all times follow the instructions of the Field Supervisor.
- Do not deviate from the APP or the instruction of the UXOSO.
- Avoid rushing and/or taking short cuts.
- No waste shall be disposed of without the direction of the SUXOS.
- Conduct visual checks on machinery and equipment prior to use, and complete the daily inspection form.
- Take precautions to prevent spillage and splashing. Contain spilled liquid if possible.
- Alert your senses to potentially dangerous situations (e.g., strong, irritating, or nauseating odors).
- Familiarize yourself with the physical characteristics of the site.
- Keep a minimum number of personnel and equipment in the contaminated area, consistent with the requirements of safe site operations.
- Dispose of all wastes generated during activities as directed by the SUXOS.

Conformance with these site rules is mandatory for continued project participation.

14.0 SITE-SPECIFIC HAZARDS AND CONTROLS

The anticipated hazards, control measures, and safety procedures for the following specific site activities and tasks are presented in Attachment 1 – SSHP.

In addition, ECC's Corporate Health and Safety SOPs, referenced throughout the APP and SSHP, will be utilized to assist in the identification and implementation of appropriate hazard control measures. A listing of these SOPs is presented in Attachment 5. SOPs known to be applicable to this project are included in the Work Plan, Appendix F.

14.1 Site Control

Site control procedures for this project will include the establishment of work zones at each work location to provide site security by avoiding unauthorized access and to secure work locations between shifts. Site specific requirements are addressed in the SSHP.

Site security will be established by clearly marking all work zones at normal locations of possible entry by unauthorized personnel in order to minimize and prevent public exposure to hazards created by site activities. In addition, the UXOSO, as well as, all ECC employees and subcontractors will stay alert for any unauthorized entry and take necessary actions to control the work area.

Work zones will be marked with barricades or signs, and visitors will be instructed to check in at the administrative trailer or access point.

Authorized site visitors may visit the site upon meeting the following conditions:

- Receiving site hazard and safety instructions from the UXOSO
- Reviewing and complying with the essential elements of the APP
- Using their own, or provided PPE, to enter regulated work areas per the APP and SSHP
- Reporting any observed unsafe act and/or condition at, or affecting, the work site.

14.2 Hazard Communication

ECC will implement a hazard communication program on field projects in accordance with Explosives Safety Submission (ESS) SOP HS-007. The UXOSO is responsible for maintaining a list of hazardous

materials used on the site, as well as MSDSs for each hazardous material. These materials will be maintained in the office or vehicle used by the UXOSO, and for large sites, at other designated areas convenient to field personnel. Employees will be trained in the program and their access to the information as part of the site-specific training. Copies of MSDSs will be provided to the client representative.

14.3 Biological Hazards

This section provides a description of some of the common biological hazards and controls that may be applicable to this project. Indigenous hazards will be discussed during the site orientation training and daily briefings, and where necessary, PPE and first-aid treatment protocols will be established during site operations.

14.3.1 Insect Bites/Stings

An insect bite or sting can cause pain, disease, and inflammation. If not treated correctly, some bites and stings may cause serious illness or even death. Bites from deer ticks can cause Lyme Disease, which can be fatal. During seasons of the year when insects are prevalent, the first line of defense is the use of an insect repellant, applied at two to three hour intervals.

If an insect bite occurs, employees should be aware of the following symptoms. A ring may form around the bite indicating that the tick may be carrying the Lyme Disease. This is not always true however, and crewmembers that have received a tick bite should seek appropriate medical treatment if soreness, swelling, or other effects occur. Personnel will take precautionary measures by wearing proper clothing, use of repellants, use of good work practices, and recognizing symptoms early. Individuals that develop a rash or experience other early symptoms of Lyme disease (i.e., fatigue, headache, muscle aches, neck stiffness, fever, and swollen glands) should notify the UXOSO promptly for referral to a physician for evaluation.

From left to right: The deer tick (*Ixodes scapularis*) adult female, adult male, nymph, and larva on a centimeter scale.

General guidelines for prevention of exposure to ticks and tick-borne diseases include:

- Limit work in tick infested areas.
- Wear light-colored clothing to allow for easy visibility of ticks on clothing.
- Wear tick-prevention gaiters or use duct tape around pant legs to prevent ticks form crawling up the leg, per the instruction of the UXOSO.
- Apply repellants (e.g., permethrin to boots and clothing, DEET to exposed skin).
- Conduct a body check upon return from potentially tick-infested areas. Embedded ticks should be removed using the following guidelines:
  - Use a fine-tipped tweezers or shield your fingers with rubber gloves.
  - Grasp tick as close to the skin surface as possible and pull upward with a steady, even pressure.
  - Do not twist or jerk the tick, or squeeze, crush, or puncture the body of the tick.

- After removing the tick, thoroughly disinfect the bite site and wash your hands with soap and water.
- Save the tick and give it to the UXOSO for identification in case you become ill.

DO NOT use petroleum jelly, hot matches, nail polish, or other products to assist in tick removal.

14.3.2 West Nile Virus

Symptoms usually develop between 3 and 14 days after being bitten by an infected mosquito. Approximately 80 percent of people who are infected with West Nile Virus (WNV) will not show any symptoms at all. Up to 20 percent of the people who become infected with WNV will display mild symptoms, including fever, headache, and body aches, nausea, vomiting, and sometimes swollen lymph glands or a skin rash on the chest, stomach and back. Symptoms typically last a few days. About one in 150 people infected with WNV will develop severe illness. The severe symptoms can include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness and paralysis. These symptoms may last several weeks, and neurological effects may be permanent.

Mild WNV illness improves without treatment, and medical attention is not necessary. If symptoms of severe WNV illness are present, such as unusually severe headaches, notify the UXOSO immediately for medical evaluation.

General guidelines for prevention of exposure to mosquitoes and WNV include the following.

- Wear long-sleeved shirts.
- Spray exposed skin with an insect repellent containing 15-30% DEET.
- Spray clothing with products containing DEET or permethrin, as mosquitoes may bite through thin clothing. Permethrin should only be used on clothing; do not apply it directly to skin. Wash treated clothing before wearing it again.
- Do not apply repellent to skin that is under clothing.
- Wash treated skin with soap and water after returning indoors.

14.3.3 Stray animals – cats, raccoons

Animal bites (both wild and domestic) can result in both infection and disease. Tetanus, rabies, and various types of fevers can follow an untreated animal bite. Never approach or harass wild animals. Notify the UXOSO of any animals observed onsite. If the animal does not exit the work area voluntarily, appropriate animal control officials will be contacted to assist in the removal.

Any individual bitten by an animal will be evaluated promptly by medical personnel. In the interim:

- Clean the wound thoroughly with soap or detergent solution.
- Flush the wound with water.
- Cover with a sterile dressing.
- Immobilize an injured extremity.
- If unable to capture or kill the animal, provide medical personnel with any information possible to help identify the animal so that they can provide appropriate treatment.

14.3.4 Snakes

All personnel should be aware that site activities have the potential for encountering or disturbing snakes. Areas with heavy undergrowth or shrubs are of special concern. Prompt first aid measures are extremely important.

If an individual is bitten by a snake, the basic rule is -- TREAT ALL SNAKEBITES AS POISONOUS. A probability exists that all snakes may be potential carriers of tetanus (lockjaw); if bitten by any snake,

whether poisonous or not, seek medical attention immediately. If bitten, identify and/or kill the snake (if it can be done quickly and safely) and take it to the hospital for identification. This information is valuable to medical personnel when treating snakebites.

The following first-aid steps should be taken if bitten by a snake:

Seek medical help. In the interim:

- Remain calm, but act swiftly.
- Immobilize the affected area in a position horizontal to the heart, or in a gravity-neutral position.
- Do not attempt to cut open the bite or suck out venom. If venom should seep through any damaged or lacerated tissues in the mouth, it could cause immediate unconsciousness and/or death.
- Do not drink alcohol or use medication. Do not apply hot or cold packs. Do not use a tourniquet such as a belt, necktie, or cord. Do not waste time trying to capture, kill, or bring in the offending snake unless it can be done quickly and safely for use in identification of the proper treatment.

14.3.5 Poison Ivy, Poison Oak, Poison Sumac

Poison ivy and poison oak have poisonous sap (urushiol) in their roots, stems, leaves and fruits. The sap is released when the plant is bruised, and is especially hazardous in the early spring and summer when the leaves are tender. The sap may be deposited on the skin by direct contact with the plant or by contact with contaminated objects, such as clothing, shoes, tools, and animals.

Poison Ivy grows everywhere in United States except Hawaii and Alaska. In the East, Midwest, and the South, it grows as a vine. In the Northern and Western United States, it grows as a shrub. Each leaf has three leaflets. *(Leaves of three, let it be!)* Leaves are green in the summer and red in the fall. In the late summer and fall, white berries may grow from the stems.
Poison Oak has oak-like fuzzy leaves in clusters of three. It has two distinct kinds: Eastern poison oak (New Jersey to Texas) grows as a low shrub. Western poison oak (Pacific Coast) grows six-foot-tall clumps or vines up to 30 feet long and may have clusters of yellow berries.

Signs and symptoms of poisoning include itching, redness, burning sensation, swelling, blisters, and a rash. Symptoms may develop within a few hours or may take three to five days to develop. If left untreated, the rash may last several weeks.

Hazardous Plants

Poison Ivy: A woody shrub or vine. The vine climbs by aerial rootlets that cling readily to trees. Three leaflets borne on a single petiole make up the leaf. Each leaflet can be up to four inches long and is a dark waxy, shiny green above and lighter green and fuzzy beneath. The flowers grow like berries on very thin stems. During the summer, the flowers are lost and the leaves turn fire-engine red. All parts of the plant are poisonous.

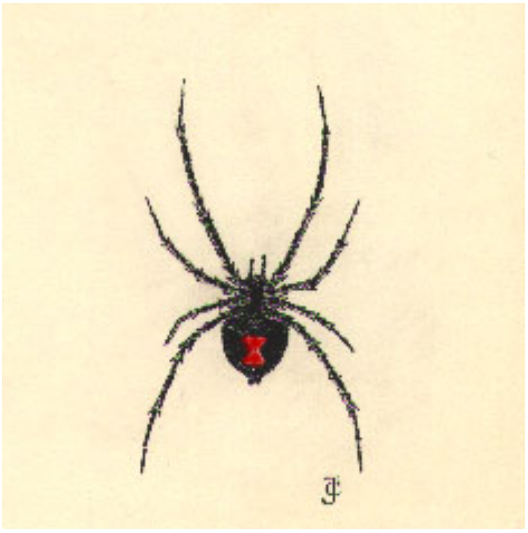
Poison Oak: In the West, poison oak may grow as a vine or a shrub. In the East, it grows as a shrub. Hair grows on the fruit, trunk and leaves. Leaves have three leaflets like poison ivy. The flowers of poison oak are glossy, white-green and grow like berries. In the fall, poison oak is yellowish red and in the winter it is bare. When bare, poison oak can be distinguished by its three branches. All parts of the plant are poisonous.

Poison Sumac: This plant can be a tree or shrub, it can grow up to 25 feet in height with a trunk up to 6 inches in diameter. It is limited to swampy lands but ranges from Maine to Florida and west to Minnesota, Missouri and Louisiana. The leaves alternate, can be 15 inches or more long made up of 7 to 13 alternating thin oval to pointed leaflets. The whole plant is very poisonous.

Preventive measures include wearing long-sleeved shirts and long pants, and cloth or leather gloves. Barrier creams should be applied to exposed skin. Calamine lotion over affected area will also help relieve itching and promote healing. Rubbing alcohol can be used to remove the oily resin up to 30 minutes after exposure.

14.3.6 Spiders

Spiders in the United States are generally harmless, with two notable exceptions – the black widow spider (*Latrodectus mactans*) and the brown recluse or violin spider (*Lox osceles reclusa*). Field workers must exercise caution when lifting covers off manholes or sumps or rummaging through wood, rock, or brush piles, etc. Both the black widow and brown recluse spiders are typically found in these locations. The following describes the symptoms and treatment for spider bites.



Black Widow

Brown Recluse

14.3.7 Black Widow

Black widow spiders spin tangled webs of coarse silk in dark places, usually outdoors. Webs are usually built near the ground normally in trash, rubble piles, under or around houses and outbuildings such as privies, sheds, and garages. The bite feels like a pinprick or is not even felt. At first, there may be only slight local swelling and two faint red spots surrounded by local redness at the bite. Pain becomes intense in one to three hours and may continue up to 48 hours. Pain usually progresses from the bitten member up or down the arm or leg, finally localizing in the abdomen and back. The abdominal muscles may become rigid and board-like with severe cramps (resembles appendicitis). There may be pain in the muscles and soles of the feet, and eyelids may become swollen. Other symptoms may be nausea, profuse perspiration, tremors, labored breathing and speech, and vomiting. During this time, a feeble pulse, cold clammy skin, unconsciousness, convulsions and even death may result if the victim does not receive medical attention immediately. Additional complications may occur due to the infection of the bite. Bites are uncommon and serious long-term complications or death are rare. If bitten, remain calm, collect the spider (if possible) for positive identification, and get medical attention immediately. First aid is of limited help. Application of a mild antiseptic such as iodine or hydrogen peroxide prevents infection.

14.3.8 Brown Recluse

The brown recluse spider, or violin spider, is about 1 inch long. The most distinguishing mark is the violin like dark patch on their head and thorax with the skinny part of violin pointing toward the abdomen. It is not an aggressive spider, but will attack if trapped or held against the skin. No deaths have been reported in the US from a brown recluse bite.

Venom from the brown recluse spider usually causes local tissue damage. The most common symptoms of a bite from a brown recluse spider bite include: burning, pain, itching, or redness at the site which is

usually delayed and may develop within several hours or days of the bite; a deep blue or purple area around the bite, surrounded by a whitish ring and large red outer ring similar to a "bulls eye"; an ulcer or blister that turns black; headache, body aches; rash; fever; nausea or vomiting. These symptoms of a brown recluse spider bite may resemble other conditions or medical problems.

First Aid: Seek immediate medical attention. In the interim, the following steps should be taken:

- Wash the area well with soap and water.
- Apply a cold or ice pack wrapped in a cloth to reduce swelling and redness.
- Apply an antibiotic lotion or cream to protect against infection.
- Give acetaminophen for pain.
- Elevate the site if the bite occurred on an arm or leg (to help prevent swelling).
- Seek immediate emergency care for further treatment. Hospitalization may be needed.

14.4 Physical Hazards

14.4.1 Heat/Cold Stress

Cold and heat stress are both applicable to McClellan. SOPs HS-015 and HS-016 present monitoring requirements and symptoms.

14.4.2 Noise

A Hearing Conservation Program will be in place whenever employees are exposed to 85 dBA (slow) averaged over an 8-hour workday in accordance with ECC SOP HS-014. Employees will be trained on the contents and purpose of the Hearing Conservation Program when the program is established. Training will also include the proper use and care of various types of hearing protection. Annual audiograms will be provided for employees exposed to 85 dBA (slow) averaged over an 8-hour work day.

14.4.3 Underground Utilities

The PM and/or SUXOS will be responsible for determining whether utilities "reasonably may be expected to be encountered." All known utilities will be identified and marked prior to excavation/trenching activities. Potential utilities requiring evaluation include electric, gas, oil, chemical lines, pipelines, sewers, telephone/communications, fiber optic, cable TV. Every effort will be made to identify, trace, and mark utility lines. Unknown underground utilities may exist at many projects, in many areas.

ECC and the Subcontractor(s) are responsible for ensuring that safe work practices are used to identify and avoid contact with underground utilities. The following safe practices apply:

- All utility locate activities shall be coordinated with the PM, the MES PM, and/or local utility locate businesses.
- Identified utilities will be marked with stakes, flags, paint, chalk, offsets, or other visible means of identification.
- Intrusive soil activities conducted within a 5-foot "Buffer Zone" (horizontal or vertical, as measured from the outside edge of the utility) of any utility (electric, gas, high pressure, chemical storage tanks, pipelines, sewers, etc.) may require the use of non-aggressive excavation methods such as hand excavation using non-conductive hand tools, use of an air spade, hydro-excavation, or similar means.
- If a previously unknown utility line is identified, uncovered, or disturbed during excavation/trenching activities, the excavation activity shall stop immediately and project management notified. Excavation will not recommence until the line has been evaluated, identified, traced, and/or safe work practices have been developed and implemented to limit or prevent associated hazards.

- Excavation spoil piles should not be placed atop surface features or ground markings identifying the locations of underground utilities.
- Utilities exposed during excavation or potholing must be protected. Utilities can shift or sag when the soil that was supporting and protecting the utility is removed.
- Utilities that are unsupported will be temporarily supported by shoring or other means as excavation continues.

Uniform Color Code of the American Public Works Association:

- Red – Electric power distribution and transmission lines, cables, conduit, and lighting cables
- Yellow – Gas and oil distribution systems, steam, petroleum, or other hazardous liquid or gaseous materials
- Orange – Telephone, video, cable TV, other telecommunications, alarm or signal lines, cable or conduit
- Blue – Water, irrigation, and slurry lines
- Green – Sewers, storm sewer facilities, other drain lines
- Pink – Temporary survey markings
- Purple – Slurry and reclaimed water (also used for Cable TV)
- White – Proposed excavation limits, centerline and width of proposed lineal installations

14.4.4 Precautions When Near Overhead Utility Lines

Best Safety Practice: Never get closer than 10 feet to an overhead power line. Before you begin work, survey the site for overhead power lines. LOOK UP! All overhead wires will be considered to be energized unless and until the person owning such line or the electrical utility authorities indicate that it is not an energized line or it has been visibly disconnected.

If overhead lines are present, call the utility company/owner and find out what voltage is on the lines. Ask if the lines can be de-energized while work is performed near the lines. If lines cannot be shut down and/or line insulation is applied, a minimum safe distance of 10 feet must be established. Conduct a pre-work briefing to discuss the planned work. Include discussion of all equipment that could come in contact with the power lines (dump trucks, excavators, back hoes, cranes, etc.).

For lines rated 50kV or below, the minimum clearance between the lines and any part of the equipment (e.g., excavator, loader, crane) or load shall be 10 feet. For lines rated over 50kV, minimum clearance between the lines and any part of the equipment or load shall be 10 feet plus 4 inches for each 10kV over 50 kV. Or, follow the ANSI guidelines for operating cranes (and other equipment) near overhead power lines (ANSI Standard B30.5-1994, 5-3.4.5)[ANSI 1994]:

Table 5. Equipment / Powerline Safe Distances

Power line voltage phase to phase (kV)	Minimum safe clearance (feet)
50 or below	10
Above 50 to 200	15
Above 200 to 350	20
Above 350 to 500	25
Above 500 to 750	35
Above 750 to 1,000	45

- Notify line owners before work is performed near power lines.
- Post warnings on equipment cautioning the operators to maintain safe clearance between energized power lines and their equipment.
- Operate all equipment at a slower-than-normal rate in the vicinity of power lines.

- Exercise caution near long spans of overhead power lines, since wind can cause the power lines to sway laterally and reduce the clearance between equipment and the power line.
- Mark safe routes where equipment must travel beneath power lines.
- Exercise caution when traveling over uneven ground that could cause the equipment to weave or bob into power lines.
- Keep all personnel well away from the equipment whenever it is close to power lines.
- Prohibit persons from touching the equipment or loads until a signal person indicates that it is safe to do so.

If Contact With Overhead Power line Occurs:

To protect against electrical shock injury in the event of contact between a piece of equipment and an energized line, the following procedures are recommended:

- The equipment operator will remain inside the cab.
- All other personnel shall keep away from the equipment, crane, ropes, and/or load, as the ground around the equipment might be energized.
- The equipment operator should try to remove the equipment from contact by moving it in the reverse direction from that which caused the contact.
- If the equipment cannot be moved away from contact, the operator will remain inside cab until the lines have been de-energized.

14.5 Site Monitoring

No site monitoring is planned at this time. However, the SSHP will be revised to include monitoring procedures should the need arise to conduct monitoring.

14.6 Emergency Planning

ECC's field project management team will hold an emergency response planning meeting during mobilization and prior to field work to discuss and define the following:

- Personnel roles and line of authority
- Safe distances from emergency location
- Evacuation/Hospital route, procedures, and pre-determined meeting place
- Medical emergency and communication procedures
- Emergency alert and response procedures
- Emergency equipment and its location on-site.

The emergency response plan will be discussed during initial site training and discussed regularly during the Daily Tailgate Safety Meetings. Annually or as needed, the UXOSO and the PM will review the plan and make any changes necessary to keep the plan current with new or changing site conditions and information. The UXOSO will conduct drills bi-annually or more frequently if conditions change to evaluate the response and testing the effectiveness of the plan.

Conditions that may lead to an emergency situation during field activities will be addressed in specific AHAs as tasks are identified. These conditions include:

- Fire
- Vehicle collisions or rollovers
- Environmental release
- Severe weather
- Medical emergency due to heat/cold stress, physical/physiological incident, allergic reactions.

14.7 Responsibilities

During all emergencies, the SUXOS will serve as the Emergency Coordinator and the UXOSO will support the Emergency Coordinator in the safety officer role. Together they will abate and/or contain the emergency.

Upon discovering an emergency, the following series of events will occur:

- Notify personnel.
- Establish communication.
- Stop work activities, if necessary.
- Lower background noises (shut down equipment).
- Begin emergency procedures (order is dependent on the situation).
- Survey casualties.
- Assess "Airway, Breathing, Circulation" of each patient.
- Request aid, if necessary.
- Assess existing and potential hazards to site personnel and off-site populations.
- Allocate resources.
- If a certified EMT is in attendance, help extricate and stabilize victims.
- Evacuate all non-essential personnel.

14.8 Alerting and Communications

An employee alarm system will consist of the use of air horns or verbal instructions, either directly or via radio. Air horn signals, (and hand signals if necessary) will be established and employees will be trained in the signals and appropriate response. Telephones will be used to contact off-site emergency responders. Contact lists, included in the SSHP, will be posted in the site offices, and a copy will be kept in site vehicles. The following information will be communicated:

- Name of the person reporting the emergency
- Telephone number at the location of the person making the call
- Name of the injured person, if known
- Description of the emergency
- Exact location of the emergency
- Actions already taken
- Assistance required.

14.9 Coordination with Local Emergency Agencies

Local authorities and emergency services will be contacted prior to initiation of work. The work objectives and on-site capabilities will be explained, as well as the most likely emergencies. Preferred contact procedures will be established and the response capabilities of local responders will be determined. ECC will ensure there is good coordination between our emergency plan and local requirements. Contact agencies, points of contact and phone numbers are presented in Section 13.0 of the SSHP and also in Appendix B of the Work Plan.

14.10 Emergency Action Procedures

At least two employees certified in both First Aid and Cardiopulmonary Resuscitation (CPR) will be on the project at all times. A first aid kit must be maintained on site and checked weekly (EM 385-1-1 section 03.B.02). A log of items used will be maintained.

If an injury or illness requires more than first aid, but is not an emergency, the employee will be taken to a pre-determined clinic for examination or observation, after contacting the Corporate Medical Provider Dr. Greaney or his Occupational Health Nurse at WorkCare.

If the injury or illness is considered an emergency, the local ambulance service will be contacted to transport the victim to the local hospital or emergency care facility.

14.11 Rescue Operations

Where employees are engaged in one of the following activities or environments, a rescue plan will be incorporated into the site-specific work plans as required.

- Working at elevations;
- Using personal fall arrest systems
- Confined spaces, or potentially IDLH atmospheres
- Working alone
- Working in remote environments.

14.12 Evacuation Routes and Procedures

Evacuation Routes and rally points will be identified during pre-mobilization activities. The SUXOS and UXOSO will be responsible for training the site personnel in the proper evacuation procedures and for arranging for accountability of all personnel in the event of an evacuation. Generally, this will consist of designating a person to take the daily sign-in sheet(s) to the rally point and taking a roll call.

14.13 Contamination Control during Emergencies

No decontamination is required for this project.

14.14 Spill and Discharge Control

Potential hazardous spills from the work sites are identified in the SSHP Section 13.0.

Control measures:

- Provide for secondary containment where required by regulation or contract, and where a spill could result in significant hazard or economic loss.
- Provide other appropriate engineering controls to prevent environmental releases to the ground, water or air. These will be identified in AHAs or environmental permits (or equivalent).
- Provide equipment and personnel to perform emergency measures to mitigate spills and control their spread.
- Dispose of contaminated materials.
- Provide a decontamination program to clean previously uncontaminated areas.

14.14.1 Contingency Plan

In the event of a spill or release, ECC will:

- Notify the client representative immediately.
- Take immediate measures to control and contain the release, including contacting local emergency service providers, if necessary.
- Isolate and contain hazardous release areas.
- Deny entry to the spill area to unauthorized personnel;
- Stay upwind, keep out of low areas.
- Keep combustible materials away from the spilled material.
- Collect samples for analysis to determine that cleanup is adequate.
- If liquid, prevent the discharge from traveling beyond site boundaries.
- Take caution when handling drums and containers.

14.14.2 Notification of Spills and Discharges

ECC will notify the contracting representative immediately of any spill or discharge. The client representative will make regulatory notifications unless ECC is requested to do so by the client. However, ECC is aware of its regulatory responsibilities and will make such notifications if a delay presents a compliance issue.

14.15 Fire Prevention and Protection

In addition to the office trailers, major fire hazards and their control are noted in the AHA.

Requirements for storage of flammable and combustible liquids will include:

- A suitable portable fire extinguisher will be available at the location where flammable or combustible liquids are stored.
- "No Smoking" signs will be posted in the storage area.
- Flammable liquids will be stored in closed containers. Type I or Type II metal safety cans (not greater than 5 gallons capacity) will be used for small quantities. Plastic storage containers are not allowed.
- Not more than 60 gallons of Class I or Class II liquids, nor more than 120 gallons of Class III liquids may be stored in a storage cabinet.
- Containers of flammable and combustible liquids shall be stored properly when not in use.
- The grounds around the storage area will be kept free of weeds, trash, and other unnecessary combustible materials.
- Spills will be cleaned up promptly.

All project personnel will be responsible for observing and reporting fires and conditions that could lead to fires. During all on-site activities, the following practices will be used for fire prevention and protection:

- Smoking on-site is prohibited in designated work areas, contamination reduction zones, and other areas where smoking may create a fire hazard (e.g., dry fields).
- A designated smoking area will be established as necessary by the UXOSO when operations on site begin.
- Accumulations of combustible scrap and debris on-site will be promptly removed and properly disposed.
- Care will be taken with all equipment to reduce the possibility of sparks or open flames.
- Inspect all electrical cords and plugs prior to use; keep cords away from water and moisture.
- Fire extinguishers (minimum 2ABC, 10-lb) will be available at the work area and support area.
- A fire extinguisher will be available on all pieces of heavy equipment.
- Fire extinguishers will be inspected monthly.
- Defective fire fighting equipment will be replaced immediately.
- Fires or open flame devices will be prohibited, unless authorized by the UXOSO in accordance with a Hot Work Permit.
- Only employees trained in the use of fire extinguishers will be permitted to use them.
- Only fires in the incipient stage will be addressed using portable fire extinguishers. Regardless of the size and nature of the fire, and ECC's ability to respond, all fires will be reported immediately to the local fire department.

14.16 Emergency Supplies

At a minimum, the following supplies will be immediately available for on-site use:

- Air horns
- First aid equipment and supplies
- Emergency eyewash station as per ANSI Z-358.1 if exposure to corrosive materials is present
- Blood borne Pathogen PPE and bodily fluid cleanup kit
- Spill control material and equipment
- Radio and Cell phone
- Type ABC fire extinguisher, 10 lb. capacity, minimum of two
- A vehicle parked at an exit point.

Each field team will have a first aid kit, eye wash, fire extinguisher, air horn and communications equipment. Additional emergency response equipment will be located at the field office.

14.17 Documentation and Review

After the response, ECC will prepare an Incident Report. It will include such things as a chronological history of the emergency, facts, action, personnel present, sample results (if collected), summary of injuries, and possible exposures. For spills and releases it will also include:

- Description of material spilled, including identity, quantity, and a copy of the waste disposal manifest
- Exact time and location of the spill, and the description of the area involved
- Containment procedures utilized
- Description of the cleanup procedure employed at the site, including disposal of spill residue
- Summary of the communications ECC had with other agencies.

This report will be given to JPA within 2 days of the incident along with immediate verbal notification.

The report will also contain a critique of the response and modifications to this plan will be made if necessary to adequately address subsequent emergencies.

14.18 Accident Prevention Signs, Tags and Labels

Standard accident prevention signs, tags and labels will be used to communicate hazards and precautions in accordance with Section 8 of EM 385-1-1. Examples that may be used include:

- Project sign, including running injury-free record
- Danger, Warning and Caution signs
- Work zone signs
- PPE requirement signs
- Lockout/ tag out tags
- Inspection and Do Not Use tags
- NFPA or HMIS hazardous material signs and labels.

Specific items will be determined by UXOSO.

14.19 Postings

Required postings and general safety awareness reminder posters will be used to communicate information to site participants. In addition to the Safety and Health Bulletin Board described below, posters may be used anywhere throughout the site as determined by the UXOSO. Poster topics will be directed at the known hazards on the site.

14.20 Daily Safety Briefings

Daily briefings will be used to communicate daily activities, hazards and precautions, as well as to solicit input from site participants on safety issues or improvements. The briefings may also be used to present safety training topics and refresher items.

14.21 Safety and Health Bulletin Board.

ECC will erect and maintain a safety and health bulletin board in an area commonly accessed by workers. The bulletin board will be maintained current, in clear view of onsite workers; and protected against the elements and unauthorized removal. It will contain at least the following safety and health information:

- Map denoting the route to the nearest emergency care facility.
- Emergency phone numbers.
- Copy of the current APP and the task-specific SSHP will be mounted on or adjacent to the bulletin board or state the location, which will be accessible on the site by all workers.
- Copy of current AHA reports mounted on or adjacent to the bulletin board or state the location, which will be accessible on the site by all workers.
- OSHA Form 300A will be posted from February 1 through April 30 of each year. The form will be mounted on or adjacent to the bulletin board.
- Safety and Health promotional posters.
- Date of last lost workday injury.
- OSHA Safety and Health Poster.
- Copy of Safety and Occupational Health Deficiency Tracking Log will be mounted on or adjacent to the bulletin board or state the location where it will be accessible by all workers upon request. (See below for required content.)

The Safety and Occupational Health Deficiency Tracking Log will list the status of safety and health deficiencies in chronological order. The list will be updated daily, and include:

- Date deficiency identified
- Description of deficiency
- Name of person responsible for correcting deficiency
- Projected resolution date
- Date actually resolved.

ATTACHMENT 1 – SITE SAFETY AND HEALTH PLAN

This Site Safety and Health Plan (SSHP) supplements the Accident Prevention Plan and contains task order–specific information. Additional safety and health requirements will be found in the AHAs, supplemental plans (if applicable), ECC Corporate SOPs and project specific SOPs as identified below. If hazards or conditions are identified that are not covered by this SSHP, contact your UXOSO. Applicability to EM 385 is shown in the table below.

Hazard Assessment and Control	EM 385 Reference	Required Yes/no	If Required, Location or Reference
Activity Hazard Analysis (AHA)	01.A.13	Yes	A listing of applicable AHAs is found in Section 3.0 AHAs are presented in Attachment 2.
Alcohol and drug abuse prevention plan	N/A	Yes	HS-036 (Work Plan Appendix F)
Electrical safety	11	Yes	HS-020 (Work Plan Appendix F)
Excavations	25	Yes	HS-018 (Work Plan Appendix F)
Fall protection plan	21	No	
Hazard communication program	01.B.06	Yes	APP Section 13 and Attachment 2
Health hazard control program	06.A.02	Yes	SSHP all sections
Respiratory protection plan	05.E.03	No	

Site Layout and Support Facilities	EM 385 Reference	Required Yes/no	If Required, Location or Reference
Public safety requirements	04.A.04	Yes	Work Plan
Site layout plans	04.A.01	Yes	Work Plan Appendix A
Site sanitation plan	Sec. 02	Yes	SSHP Section 10.0

Emergency Preparedness	EM 385 Reference	Required Yes/no	If Required, Location or Reference
Emergency phone numbers	01.E.05	Yes	SSHP Section 13
Emergency route to the hospital	01.E.05	Yes	Attachment 4
Emergency response procedures	01.E.01	Yes	AAP Section 13
Fire prevention plan	09.A.01	Yes	AAP Section 13

1.0 Site Description

Site History and Description

McClellan has documented use as a military training area since 1912, when the Alabama National Guard used it for artillery training. However, the Choccolocco Mountains may have been used for artillery training by the units stationed at Camp Shipp in the Blue Mountain Area during the Spanish American War as early as 1898. The 29th Infantry Division used areas of McClellan for training prior to being ordered to France during World War I. In 1917, Congress authorized the establishment of Camp McClellan, and in 1929, the camp was officially designated as Fort McClellan. Prior to World War II, the 27th Infantry Division assembled at McClellan for training, and during the war, many other units used the site for various training purposes. Following World War II, in June 1947, McClellan was put in inactive status. McClellan was reactivated in January 1950 and the site was used for National Guard training and was selected as the site for the Army's Chemical Corps School.

The history of McClellan, as described in the Archives Search Report (ASR) Findings [U.S. Army Corps of Engineers (USACE) 1999a] and ASR Conclusions and Recommendations (USACE 1999b), includes training activities and demonstrations that used conventional weapons (i.e., mortars, anti-tank guns, and artillery pieces). McClellan was recommended for closure under the BRAC Program and was closed in September 1999.

A location map of the area is provided in Appendix A of the Work Plan.

Scope of Work:

The work required under this Scope of Work (SOW) requires the removal of Munitions and Explosives of Concern (MEC) that exist on property formerly owned or leased by the Department of Army.

MEC is a safety hazard and may constitute an imminent and substantial endangerment to the local populace and site personnel. The work associated with this action will be performed in accordance with plans approved by the Alabama Department of Environmental Management (ADEM) under a memorandum of agreement with the Department of the Army.

All activities involving work in areas potentially containing explosives hazards shall be conducted in general compliance with Department of Defense (DoD), Department of Army, US Army Corps of Engineers (USACE), state and local requirements regarding personnel, equipment, and procedures. 29 CFR 1910.120 shall apply to all actions taken at this site.

McClellan may contain chemical warfare material (CWM). If ECC identifies or suspects CWM, personnel shall immediately withdraw upwind from the work area and contact Matrix Environmental Services. The contractor shall secure the area and provide two personnel located upwind of the suspect CWM to secure the site.

SUBCONTRACTORS

Company	Scope of Services
NEAVA Geophysics	Geophysical Investigation
Geophysical Associates	Geophysical Data Analysis
Sain Associates, Inc.	Surveying
EnviroGrind, Inc	Brush removal
Bering Sea Eccotech, Inc.	MEC demilitarization, scrap recycle and disposal

2.0 Hazard Assessment

AHAs for this task are listed below and can be found in Attachment 2.

- General site work
- Vegetation Clearing
- Intrusive Operations Using Manual Tools and Methods
- UXO Demolition Activities

ECC SOPs

SOPs applicable to this project are provided in Appendix F of the Work Plan.

UXO known or suspected to be present?		UXO support and plans provided:	
Yes X	No □	Yes X	No □

Crane Lifts	Yes □	No **X**
Items to be lifted: None		Lift plan: N/A

Excavations	Yes **X**	No □

The Utilities Location Plan will be provided by the local utilities company. MEC investigation and mitigation procedures are included in the Work Plan Chapter 2 – Technical Management Plan and in the site ESS.

Biological Hazards Anticipated biological hazards are included in the APP, Section 13.

CHEMICAL HAZARDS						
Site Contaminants						
Chemical	**Media [water or soil]**	**Conc. [range or max.] [mg/kg or ug/l]**	**PEL [mg/m^3 or ppm]**	**TLV [mg/m^3 or ppm]**	**Route of Entry**	**Symptoms & Fire/reactivity Hazards**
There are no known chemical hazards associated with the scope of work.						
Hazardous Materials to be Used						
Material	**Hazardous Constituent**	**Physical Form**	**PEL [mg/m^3 or ppm]**	**TLV [mg/m^3 or ppm]**	**Route of Entry**	**Symptoms & Fire/reactivity Hazards**
No hazardous materials are used on this project.						

3.0 Staff Organization

Resumes of Key personnel are included in Appendix E of the Work Plan

KEY PERSONNEL		
Names and Titles	**Contact Information**	
Program Manager Doug Lamothe	Phone: 865-414-1475 Email: DLamoth@ecc.net	
Project Manager Jeff Viebrock	Phone: 417-268-7067 Email: JViebrock@ecc.net	
Site Supervisor Frank Czajkowski	Phone: 813-404-3730 Email: FCzjakowski@ecc.net	
UXO Safety Officer James Haynie	Phone: 508-563-9767 Email: JHaynie@ecc.net	
UXO Quality Control Specialist Terry Rutherford	Phone: 865-809-3849 Email: TRandkr@htc.net	
Senior UXO Supervisor Ray McManus	Phone: 256-283-8383 Email: Ray014@centurytel.com	

4.0 Training

In addition to the general training requirements addressed in Section 7 of the APP, the following site specific requirements are required:

General Training Requirements

40-hour OSHA off-site hazardous waste site instruction. Off-site instruction must comply with the 40-hour training requirements in OSHA standards 29 CFR 1910.120 and 29 CFR 1926.65.

8-hour annual refresher training. Refresher training must comply with the requirements in OSHA standards 29 CFR 1910.120 and 29 CFR 1926.65.

3 days of field experience under the direct supervision of a trained, experienced supervisor.

Supervisory training.

On-site supervisors must comply with the 8-hour supervisory training requirements.

Project-specific training. The following project-specific training shall be provided to workers before on site work begins:

- Training specific to Section 6 of the APP.
- Training covering each element of this SSHP.
- Site specific MEC hazards.
- ECC will maintain copies of the required training certificates on site and will make them available for JPA inspection upon request.

5.0 Personal Protective Equipment

Unless otherwise approved by HSM, all non-UXO activities will be performed in OSHA Level D Modified PPE and will include at least ANSI approved hard hats, safety-toe footwear, and safety glasses with side impact protection. PPE Exceptions for UXO activities are listed

	General Site Activities	UXO Activities	Brush Cutting	
Respiratory Protection Type:	None required.	None required.	See the AHA	
Body protection	Standard work clothing. Hard hats not required. Steel-toed Work Boots	Work boots without steel toes.	See the AHA	
Hand protection	Leather gloves when using hand tools.	Leather gloves	See the AHA	
Eye/face protection	Safety glasses.	Safety glasses.	See the AHA	
Hearing protection	None required.	None required.	See the AHA	
Other (e.g. Personal Fall Arrest)	None required	None required	See the AHA	

6.0 Medical Surveillance

In addition to requirements stipulated in Section 11 of the APP the following site specific requirements must be adhered to:

All personnel performing on-site work will be enrolled in a medical surveillance program that complies with OSHA standards 29 CFR 1910.120 (f) and 29 CFR 1926.65 (f). Minimum specific exam content and frequency based on probable site conditions, potential occupational exposures, and required protective equipment shall be specified. Certification of medical surveillance program participation is included in attachment 3 of this SSHP and includes: employee name, date of last examination, and name of examining physician. The required written physician's opinion is included and will be made available upon request of the JPA. All medical records will be being maintained by ECC in accordance with 29 CFR 1910.1020.

7.0 Exposure Monitoring/Air Sampling Program

Real Time (Air, noise, heat, radiation, light)

Instrument / Contaminant	Frequency	Action Levels	Actions/Upgrade and Rationale
Real time air monitoring will not be required in the scope of this project.			

Integrated Personal

Contaminant	Frequency (# of samples)	Duration
Integrated personal monitoring will not be required in the scope of this project.		

Perimeter		
Contaminant	**Locations and Frequency**	**Duration**
Perimeter monitoring will not be required in the scope of this project.		

Special Medical Monitoring (list tests, frequency, criteria levels and any medical removal/physician consultation requirements):

- Special medical monitoring will not be required in the scope of this project.

8.0 Heat and Cold Stress Monitoring

Heat stress monitoring may be required depending upon the duration of the project. Procedures contained in SOP HS-016 – Heat Stress Monitoring Program are available upon request.

9.0 Site Control Measures, (See Section 13 of APP))

Work Zones:

- Site access will be controlled using barrier tape and/or fence.
- Specific Minimum Separation Distances (MSDs) will be established based on the approved explosives safety submission for the site.

Decontamination Procedures: None required.

Engineering and Special Work Practices to control site contaminants:
Miniature Open Front Barricade (MOFB) and Sand bag mitigation techniques will be incorporated when investigating suspected MEC and during disposal by detonation activities where necessary due to MSD.

MEC Waste Materials Management (Contaminated soils, debris, scrap, PPE, decon fluids, etc.):
Specific packaging and inspection criteria for MEC-related scrap and non-MEC-related scrap are included in the Work Plan (WP), Chapter 2 Technical Management Plan.

10.0 Personnel Hygiene and Decontamination

Personnel Decontamination

Personnel Decontamination will not be applicable for this project.

Sanitation

- Drinking Water: Potable bottled drinking water will be provided.
- Toilet Facilities: Portable toilets will be provided in close proximity of the daily assigned work area.
- Washing/Shower Facilities: Hand and face cleaning supplies will be available at each portable toilet.
- Food Service: Will not be required in this task order
- Vermin Control: Will not be required in this task order

11.0 Equipment Decontamination

Equipment Decontamination will not be applicable for this project.

12.0 Emergency equipment and First aid

Specific requirements are in the Work Plan and UXO SOP 2-2 Medical Emergencies

13.0 Emergency Contacts

Contact		Telephone Number
•	Medical Facilities: Regional Medical Center	256-235-5121
•	Ambulance: Anniston EMS	256-237-8572
•	Anniston Fire Department	256-231-7644
•	Police	911 or 256-238-1800
•	Poison Control Center	1-800-222-1222
•	Technical Escort Unit	410-436-8534
•	Corporate HSM – Rich Gioscia	303-898-8859
•	ADEM: LaBarron Rudolph	334-270-5646
•	ECC Project Manager - Jeff Viebrock	417-268-7067
•	ECC Program Manager - Doug Lamothe	865-414-1475
•	Program UXO Safety Officer - John Bowles	757-373-4798

THIS LIST WILL BE POSTED NEAR ALL PHONES AND LOCATED IN ALL PROJECT VEHICLES.

KEY PROJECT PERSONNEL ARE TO HAVE THIS LIST READILY AVAILABLE AT ALL TIMES

Conditions potentially leading to emergency:

- Slips trips and falls
- Contact with mechanized equipment and vehicles
- Fires
- Contact with underground utilities
- Unplanned detonation of UXO

Evacuation and Rally Points:

To be determined for each location. A standard site location map will be used to address evacuation routes and rally points at the daily tail gate safety briefing

Spill or Release Potential (Describe): Limited to fuels and normal mechanical fluids.

Spill Supplies Needed: Those necessary for the above.

Directions to Hospital (Post Attachment 4 – Hospital Route Map in each site vehicle. Directions to the Helicopter Pad are shown in Attachment 4):

Directions will be briefed on a daily basis at the daily tailgate safety briefing using the hospital route map.

Exit McClellan via the Summerall Gate and go south approximately 3 miles on Hwy 21. Turn east onto East 10th Street and go to 400 E. 10th Street to the Regional Medical Center.

Directions to the clinic to be used for non-emergency cases will also be available and posted.

Rescue Plan(s) Complete if workers will be working 1) alone; 2) in geographically remote sites; 3) at elevations; 4) using personal fall arrest systems; 5) in confined spaces; 6) in potentially IDLH atmospheres:

- Rescue plans will not be required in the scope of this project.

14.0 Emergency Response Team

See Section 13.0 for emergency contact information.

15.0 Confined Space Entry

Will not be required in the scope of this project.

16.0 Logs, Reports and Record Keeping

Specific requirements are addressed in the applicable portions of the Work Plan. Required forms are included in Attachment 8 of this document and in Appendix D of the Work Plan.

- Training logs, daily safety inspection logs, employee/visitor registers, medical surveillance records and certifications, will be kept on site and become part of the final report.
- All personal exposure and medical monitoring records will be maintained in accordance with (IAW) applicable OSHA standards, CFR 1904, 1910, and 1926 and will be maintained at ECC's corporate office.
- All visitor registration logs, training logs, and daily safety inspection logs (as part of the daily Quality Control [QC] Reports) will be retained on site, and will be submitted as part of the final report,
- Should any unforeseen hazard become evident during the performance of work, the UXOSO will bring such hazard information to the attention of the SUXOS, ECC PM, and the JPA-MES PM (both verbally and in writing) for resolution as soon as possible. In the interim, ECC will insure that necessary action will be taken to re-establish and maintain safe working conditions.
- Accidents/incidents will be reported IAW Section 10 of the APP.
- The Safety Exposure Report, a tabulation of field labor hours, lost workday accidents, and number of lost workdays shall be submitted monthly.

Attachment 2 - Activity Hazard Analyses

Project: McClellan Location: Anniston, Alabama **Activity: General Site Work Approved by: Richard Gioscia**		
PRINCIPAL STEPS	**POTENTIAL SAFETY/HEALTH HAZARDS**	**RECOMMENDED CONTROLS**
Note: This Activity Hazard Analysis covers the common hazards and controls that may be applicable to multiple activities at the McClellan project site. It is to be used in conjunction with the more specific Activity Hazard Analysis for a particular activity. The specific AHAs will cover hazards and controls unique to those activities or subcontractor operations, per EM 385-1-1. General site environmental conditions such as weather conditions, thermal stressors, and biological hazards are covered in detail in Section 2.0 of the SSHP. They will be addressed on the AHAs only if the activity itself poses unique or exacerbated hazards or exposures.		
Heavy Equipment Operations	Struck by heavy equipment and other vehicles operating at the site	▪ Inspect vehicles and equipment upon first arrival on site and daily before operations. ▪ Ensure all equipment and vehicles have functional brakes, lights, horns, backup alarms, tire pressure. ▪ Only qualified operators will be permitted to operate heavy construction equipment. Supervisor will observe operation to establish competency. ▪ Site vehicles will only be driven by licensed drivers. ▪ Establish control zones around heavy equipment work area. ▪ Route traffic away from work area. ▪ Ensure vehicles have back-up alarms. ▪ Eye contact with operators shall be made before approaching equipment. ▪ Equipment will not be approached on blind spots. ▪ Use spotters for backing equipment in congested areas. ▪ Park vehicle with blade/bucket on ground, transmission in neutral, parking brake engaged. Rubber tire vehicles should use wheel chocks when parked on incline. ▪ Speed limits ▪ 25 miles per hour (mph) on main roads ▪ 15 mph on work sites, camp area where pedestrian traffic may occur
	Struck against other vehicles and objects	▪ Obey speed limits. ▪ Perform a 360 degree walkaround around the equipment or vehicle before moving. ▪ Park away from obstructions, such as monitoring wells. ▪ Use spotters for backing equipment in congested areas, flaggers for pulling out into public roadways. ▪ Wear seatbelts at all times. All riders must have a seat and seatbelt.
	Caught in or between	▪ Ensure that all guards are in place during inspections. ▪ Barricade rotating superstructures of cranes and excavators. ▪ Stay out of area between machine and other object. ▪ Block parts during maintenance with blocks, cribbing, or supplied ram and steering blocks.
Heavy Equipment Operations (cont)	Tipover	▪ Ensure all construction equipment has Rollover Protection Structure (ROPS)

Project: McClellan Location: Anniston, Alabama **Activity: General Site Work Approved by: Richard Gioscia**		
PRINCIPAL STEPS	**POTENTIAL SAFETY/HEALTH HAZARDS**	**RECOMMENDED CONTROLS**
		and inspect ROPS daily. ▪ Operate equipment up and down slopes whenever possible, with load on the uphill side. ▪ Operate across slopes within manufacturers recommendations ▪ Don't turn or speed on slopes. ▪ Keep loads as low as possible. ▪ Ground tools going down slope as much as possible. ▪ Park dump trucks on firm, level ground for dumping. Observe load from safe area behind to ensure even flow.
	Electrocution	▪ Maintain equipment and loads at least 10 feet from energized overhead powerlines less than 50k V. ▪ Increase buffer zone for voltages >50k in accordance with Table 11-3 of EM 385-1-1, 1996. ▪ Use non-conductive tag lines.
	Injury from quick-change buckets becoming detached from equipment.	▪ Verify complete and proper engagement of locking device prior to equipment use (visual inspection).
	Excessive noise exposure	▪ Vehicles and equipment will have mufflers. ▪ Monitor noise in work area with sound level meter. ▪ Have workers wear hearing protection when noise levels exceed 85 dBA. ▪ Use quieter equipment, if possible.
	Slips, falls	▪ Use three points of contact during access and egress of cabs. ▪ Keep steps clean and free of mud, snow and ice.
	Spills	▪ Inspect hydraulic hoses and fittings daily. ▪ Use only fuel filling nozzles with automatic shutoffs and do not use latch open dogs on nozzle handle.
	Fires	▪ Shut down engine during fueling. No smoking or open flames in fuel storage and dispensing areas. ▪ All mobile construction equipment provided with fire extinguisher with at least a 3A:40B:C rating (Ansul Sentry AA05VB or equivalent).
Manual Material Handling	Back strain from lifting and moving equipment	▪ Use mechanical lifting devices when feasible (forklifts, cranes, carts, etc). ▪ Do not lift more than 50 lbs per individual. ▪ Have others help lift excessively heavy loads. ▪ When lifting, maintain ergonomically correct lifting posture.
	Cuts and scrapes from material handling	▪ Ensure loads to be handled are free of sharp edges and points. ▪ Wear leather work gloves and long sleeved work shirts.
Using hand and portable power tools	Struck by, caught in or between	▪ Wear leather work gloves and long sleeved work shirts.

Project: McClellan Location: Anniston, Alabama **Activity: General Site Work Approved by: Richard Gioscia**		
PRINCIPAL STEPS	**POTENTIAL SAFETY/HEALTH HAZARDS**	**RECOMMENDED CONTROLS**
		▪ Inspect power tools for damage or defects before and after each use. ▪ Ensure all guards are in place. ▪ Use tools only as designed. ▪ Receive proper training in tool use.
	Struck by flying debris	▪ Wear impact-resistant, ANSI-approved safety glasses with side shields. ▪ Wear face protection in addition to safety glasses for electric or pneumatic grinding, chipping, abrasive saw metal cutting, chain saw and brush cutter work.
	Excessive noise exposure	▪ Have workers wear hearing protection when noise levels exceed 85 dBA. ▪ Use quieter equipment, if possible.
	Sprains/strains and vibration-induced musculoskeletal disorders	▪ Do not use heavy tools over shoulder height. ▪ Where tool use is necessary on a continuous or repetitive basis take frequent breaks to rest muscles and joints, particularly if working in awkward positions ▪ Use lightest tool acceptable for application ▪ Use anti-vibration gloves for repetitive use of high velocity or high impact tools, such as impact wrenches, reciprocating saws, etc.
Working with electrical equipment	Contact with energized electrical circuits	▪ Ensure all electrical installation and maintenance work is conducted by a licensed electrician. ▪ Identify all electrical circuits connected to the structures and shut them off at their source, lock and tag them out as per EHS 6-4, disconnect them from the equipment and cap them.
		▪ Ensure electrical power tools are connected to ground fault circuit interrupters ▪ Do not use electrical power tools in wet environments. ▪ Use only heavy duty extension cords and inspect daily to ensure insulation and plug connections are intact.
Working with hazardous energy sources	Exposure to electrical, mechanical, pneumatic energy sources, hazardous liquids and gases, high pressures and temperatures	▪ Shut down systems and implement EHS 6-4 Lockout/Tagout before doing any maintenance or repair on systems.
Walking/working at ground level	Slip and trips on equipment and debris left on the ground	▪ Clear work area and walkways of debris. ▪ Wear high traction, safety toe footwear. ▪ Keep walkways dry or surface with slip-resistant materials. ▪ Post exit signs and evacuation routes. ▪ Ensure portable ladders are properly placed and secured.
	Struck by dropped, flying objects	▪ Wear ANSI approved hard hat, safety glasses, safety-toe footwear where

Project: McClellan Location: Anniston, Alabama **Activity: General Site Work Approved by: Richard Gioscia**		
PRINCIPAL STEPS	**POTENTIAL SAFETY/HEALTH HAZARDS**	**RECOMMENDED CONTROLS**
		necessary due to overhead objects.
	Slips/trips/falls changing elevations	▪ Provide stairs, ladders or ramps when elevation changes greater than 19 inches are necessary. ▪ Use three-points-of-contact ascending and descending stairs and ladders.
	Falls to lower level, (e.g. excavations, pits, sumps)	▪ Cover, fill or barricade excavations at the end of each day. ▪ Establish warning lines or barricades around excavation sides during work, or use fall protection system. ▪ Keep all pits, sumps covered whenever possible. When working at an opening to a space that is greater than 6 ft. deep or contains dangerous machinery, provide fall protection.
Walking/working at elevations	Falls from elevations	▪ Elevated surfaces not designed as work platforms will be evaluated by a qualified person for structural capacity before using as a work platform. ▪ Fall protection will be used in the follow order of preference when working at elevations > 6 ft.: o Covering of floor holes o Standard guardrails o Restraint systems that restrict access to edge o Personal fall arrest system with suitable anchorage, lifeline, lanyard, body harness and attachment hardware o Written Fall Prevention Plan that includes warning lines and monitor. ▪ Personal fall arrest system in conjunction with standard guardrails will be used on articulated and telescoping boom aerial work platforms. ▪ Scaffolds will be designed by a qualified individual, constructed and inspected daily under the supervision of a Competent Person, and used by trained individuals. The Competent Person will determine feasible fall protection measures during erecting and dismantling. ▪ Work platforms will be sound construction and be kept in clean, dry conditions, and be free of obstructions that may cause tripping hazards.
Hot work including flame and spark producing operations: gas and electric welding, cutting, brazing; metal grinding and cutting with spark-producing equipment; burning	Fire and thermal burns from torch cutting and welding operations	▪ Clear work area of combustible materials. ▪ Inspect welding equipment daily. ▪ Equip torch sets with check valves at the torch and regulator and flame arrestors at least at the regulator. ▪ Close cylinder valves when not in use. ▪ Secure cylinders. Store oxygen cylinders at least 20 ft. from fuel cylinders and other combustible materials. ▪ Wear welder's goggles and welder's leather gloves, and flame resistant clothing for cutting and oxy-fuel welding. Use welding helmet and leathers for

Project: McClellan Location: Anniston, Alabama **Activity: General Site Work Approved by: Richard Gioscia**		
PRINCIPAL STEPS	**POTENTIAL SAFETY/HEALTH HAZARDS**	**RECOMMENDED CONTROLS**
		electric welding. ▪ Stage ABC type fire extinguisher nearby. ▪ Have fire watch present during and for 30 min. after torch cutting work is completed.
Hot work including flame and spark producing operations: gas and electric welding, cutting, brazing; metal grinding and cutting with spark-producing equipment; burning (cont)	Having cutting torch slag drop on workers	▪ Clear workers from area beneath structures. ▪ Rope off floor and post warning signs. ▪ Clear floor area of combustible material.
	Exposure to metal fume from torch cutting metal	▪ Do not torch cut painted surfaces. Remove paint first with chemical paint remover. ▪ Monitor for metal fume exposures as needed. ▪ When monitoring results require, wear air purifying respirator with HEPA dust /fume filters. ▪ Wear welder's goggles.
	Eye contact with flying debris	▪ Wear impact-resistant, ANSI-approved safety glasses with side shields
	Welders flash and keratitis from use of cutting torch or welding flash	▪ Wear safety glasses, welder goggles, welding helmet as appropriate with appropriate lens shade as selected in accordance with ANSI Z87.1. Example lens shades include: o Torch soldering – 2 o Oxy-fuel cutting and welding – 5 or 6 o Shielded metal arc welding (stick) – 10 to 14 depending on electrode size and current for welder. At least 5 for helper/fitter

Project: McClellan		**Location: Anniston, Alabama**
Activity: General Site Work		**Approved by: Richard Gioscia**
EQUIPMENT TO BE USED	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**
Heavy equipment	▪ Receipt by Equipment Supervisor ▪ Daily by operators	Only qualified operators permitted to operate. Qualifications and competency reviewed by Supervisor. Licensed where required by state regulations.
Site vehicles	▪ Receipt by Equipment Supervisor ▪ Daily by drivers	Drivers must have current license.
Hand and Portable power tools	▪ Receipt by Equipment Supervisor ▪ Daily by users	Training in use of power tools by Supervisor and review of operating manual. Powder-operated tool users certified by vendor.
Temporary power supplies including GFCIs, extension cords, cord and plug operated tools	▪ Outlets – weekly during site inspection ▪ GFCI – weekly during site inspection ▪ Extension cords and plugs on equipment – daily by users	General electrical safe work practices training provided during site orientation. Only licensed electricians will install, repair and maintain electrical equipment and current carrying parts of electrically-supplied tools and equipment.
Fall protection	▪ Daily site inspection for open-sided floor and floor hole hazards by UXOSO and site workers ▪ Personal fall arrest systems, restraint systems, warning systems – daily by users and Competent Person ▪ Excavations – daily by Competent Person ▪ Scaffolds – daily by Competent Person ▪ Guardrails – weekly during site inspections	Training in the hazards and proper fall protection during site-orientation, AHA reviews and site briefings as appropriate. Personal fall arrest system training by Competent Person. Scaffold use training by Qualified Person. Scaffold inspection training by Competent Person. Aerial Lift training by vendor or other competent person.

Project/Location: McClellan	**Activity/Phase of Work: Vegetation Clearing**	**Estimated Start Date:**
Analysis Performed by:	**Date:**	**Analysis Approved by: Michael P. McSherry** **Date: 1/27/05**
PRINCIPAL STEPS	**POTENTIAL SAFETY / HEALTH HAZARDS**	**RECOMMENDED CONTROLS**
Cutting of brush/trees	Unintended detonation of UXO	▪ Do not clear vegetation without escort of qualified UXO Technicians. ▪ UXO Technicians shall comply with all requirements of USACE EP 75-1-2.
	Struck by falling trees	▪ Use heavy equipment with ROPS/FOPS and cab shields to fell trees where feasible. ▪ Felling trees using chain saws will be under the supervision of experienced feller or logger. ▪ Plan the tree felling carefully. ▪ Use notch cuts and backcuts for large trees, guy ropes where necessary. ▪ Clear all personnel from possible fall paths before felling.
	Struck by falling limbs and deadwood	▪ Inspect work area carefully, look out for dead trees and limbs resting on limbs to be removed. ▪ Clear all personnel from area under limbs to be removed. Separate work teams by adequate distance. ▪ Do not climb trees to top or limb, unless approved by the Project Health and Safety Manager. ▪ Do not use chain saws over shoulder height. ▪ Wear ANSI approved hard hats and safety-toe footwear.
	Severe cuts and bruises from chainsaws and Brush Hogs.	▪ Do not walk with chain engaged. ▪ Do not use chainsaws above shoulder. Do not use brush cutters above waist. ▪ Hold equipment with both hands during cutting operations. ▪ The engine shall be started and operated only when all co-workers are clear of the saw. ▪ The operator will shut off chain saw when carrying it over slippery surfaces. ▪ Shoulder harness required for use with brush cutter. ▪ Wear leather or Kevlar chaps, leather work gloves
	Struck by flying debris	▪ Do not operate brush cutter without the debris shield in place and tightly secured. ▪ Do not operate the brush cutter without the safety clip in place. ▪ Wear safety glasses with side shields and full face shield.
	Slips/trips/falls on slopes. Falls from heights	▪ Wear high traction work boots. ▪ Whenever possible, choose walking routes carefully to avoid steep slopes. ▪ Do not climb trees to top or limb, unless approved by the Project Health and Safety Manager. If a bucket truck or extensible boom lift is used, ensure operator is trained, wears harness, and attaches lanyard to designated attachment point on platform.
	Burns from hot exhausts	▪ Wear long sleeves and leather gloves. ▪ Keep hands away from hot exhaust and engines.
	Fire/explosion of gasoline	▪ Allow equipment to cool before refueling, and eliminate other sources of ignition. ▪ Use only approved safety cans for gasoline/bar oil. ▪ Cleanup spills immediately.
	Exposure to noise	▪ Wear hearing protection.
	Contact with poisonous plants (e.g. poison ivy)	▪ Inspect area before starting ▪ Wear long sleeve shirts, tuck sleeves and pant legs. Wear gaiters on ankles. ▪ If there is heavy growth, wear disposable coveralls and use barrier cream, e.g. Ivy Block.

Project/Location: McClellan	**Activity/Phase of Work: Vegetation Clearing**	**Estimated Start Date:**
Analysis Performed by:	**Date:**	**Analysis Approved by: Michael P. McSherry** **Date: 1/27/05**

PRINCIPAL STEPS	**POTENTIAL SAFETY / HEALTH HAZARDS**	**RECOMMENDED CONTROLS**
		▪ Have Tecnu or other poison ivy cleanser on hand, and wash immediately after contact.
	Stung by bees/hornets, bit by ticks or snakes	▪ Inspect areas for hives. ▪ Ensure allergic individuals have emergency medical kit and are committed to using it. ▪ Use insect repellant containing DEET on exposed skin, and Permethrin on clothing. ▪ Do not approach snakes. If bitten, seek medical attention.
	Repetitive stress injury	▪ Switch equipment from one side to the other if possible. Take break or switch team positions if musculoskeletal fatigue is noticed.
Dragging/Stockpiling brush	Slips/trips/falls	▪ Wear high traction safety-toe footwear. ▪ Keep loads manageable to not obstruct vision.
	Scrapes and cuts	▪ Wear safety glasses, gloves and long sleeves.
	Back and/or leg strain	▪ Maintain manageable loads and stretch prior to work.
Chipping brush	Excessive noise	▪ Wear hearing protection.
	Eye injuries Being struck by debris	▪ The chipper shall be free of obstructions prior to startup. ▪ All personnel shall be clear of the chipper exhaust chute prior to starting. ▪ Wear safety glasses with side shields while chipping. ▪ Stand to the side of the feed area and avoid the discharge area. ▪ Carefully inspect feed material and remove any non-vegetative material. ▪ Brush chippers shall be fed from the side of the centerline, and the operator shall immediately turn away from the feed table when the brush is taken into the rotor; chippers shall be fed from the curbside whenever possible.
	Caught in or between moving machinery parts	▪ No loose clothing, gauntlet-type gloves, rings or watches shall be worn by employees operating chippers. ▪ Keep all body parts away from throat and discharge of chipper. ▪ Chippers shall be equipped with mechanical infeed system or shall have a flexible anti-kickback device installed in the infeed hopper for the purpose of protecting the operator and other persons in the machine area from the hazards of flying chips and debris. ▪ Mechanical infeed systems shall have a quick stop and reversing device on the infeed on disk-type tree or brush chippers. The activating mechanism for the quick stop and reversing device shall be located across the top, along each side of, and as close to the feed end of the infeed hopper as possible and within easy reach of the operator. ▪ The feed chute or feed table of the chopper shall have sufficient height on its side members to prevent operator contact with the blades or knives during normal operations. ▪ Push sticks made of materials which can be consumed by brush chipper will be used, if necessary. ▪ Shut down machinery and lock out to remove jams or make repairs.

Project/Location: McClellan	**Activity/Phase of Work: Vegetation Clearing**	**Estimated Start Date:**
Analysis Performed by:	**Date:**	**Analysis Approved by: Michael P. McSherry**	**Date: 1/27/05**
COMPETENT PERSONS (as required):		
EQUIPMENT TO BE USED	**INSPECTION REQUIREMENTS**	**TRAINING REQUIREMENTS**
Chain saws and brush cutters	Initial receipt. Daily by users.	Users trained in accordance with manufacturer's training recommendations and operators manuals. (See downloadable Stihl Safety Manuals http://www.stihlusa.com/manuals/index.html). Experience and competency of tree fellers to be verified by Superintendent and QC/HS.
Heavy equipment	Initial receipt. Daily by operators.	Competency evaluation by Superintendent.
Chipper	Initial receipt. Daily by operators.	Users trained in accordance with manufacturer's training recommendations and operators manuals.

Project: McClellan **Location: Anniston, Alabama**
Activity: Intrusive Operations Using Manual Tools and Methods **Approved by: Richard Gioscia**

Note: This Activity Hazard Analysis covers the common hazards and controls that may be applicable to UXO Intrusive Operations at the McClellan project site. General site environmental conditions such as weather conditions, thermal stressors, and biological hazards are covered in detail in Section 2.0 of the SSHP. They will be addressed on the AHAs only if the activity itself poses unique or exacerbated hazards or exposures.

PRINCIPLE STEPS	POTENTIAL HAZARDS	RECOMMENDED CONTROLS
MEC Intrusive Operations Using Manual Tools and Methods NOTE: These operations are only to be performed by qualified UXO Technicians and are not to be used by anyone else.	MEC	▪ Ensure Exclusion Zones are established to authorized Minimum Separation Distances for Non-Project Personnel and Team Separation Distances for Project Personnel. ▪ Use the minimum number of personnel (not less than two) to conduct the operation and minimize their exposure time to MEC/UXO. ▪ Ensure all personnel are qualified UXO Technicians. ▪ Conduct MEC operations in accordance with the approved explosives safety submission (ESS) ▪ UXO Technicians shall comply with all requirements of USACE EP 75-1-2. ▪ Observe general MEC/UXO hazards and precautions. ▪ Ensure compliance with the MEC/UXO Work Plan and relevant SOPs.
MEC/UXO Intrusive Operations Using Manual Tools and Methods (cont.) NOTE: These operations are only to be performed by qualified UXO Technicians.	Loud noise	▪ Reduce the volume level of detection equipment used for anomaly reacquisition before donning headset and engaging power.
	Slips, trips and falls	▪ Wear work boots with lug soles. ▪ Maintain awareness of hazards associated with uneven or wet terrain.
	Dangerous animals and insects	▪ Maintain awareness of hazards associated with dangerous animals and insects. ▪ Observe task PPE requirements.
	Repetitive stress injury	▪ Shift detection equipment from one arm to the other when fatigued. ▪ Take breaks when necessary.
	Back injury	▪ Observe proper lifting techniques setting up or putting away equipment.
	Thermal Stress	▪ Review Heat and Cold Stress SOPs.

Project: McClellan		**Location: Anniston, Alabama**
Activity: Intrusive Operations Using Manual Tools and Methods		**Approved by: Richard Gioscia**
PPE/SAFETY SUPPLIES	**SAFETY INSPECTIONS**	**TRAINING**
Note: This Activity Hazard Analysis covers the common hazards and controls that may be applicable UXO Intrusive Operations at the McClellan project site. General site environmental conditions such as weather conditions, thermal stressors, and biological hazards are covered in detail in Section 2.0 of the SSHP. They will be addressed on the AHAs only if the activity itself poses unique or exacerbated hazards or exposures.		
Initial PPE will be modified Level D. Metal detector and related navigation and/or data-recording equipment <u>Support Zone</u> ▪ Cell phone or Radio communication ▪ Eyewash station ▪ Fire extinguishers ▪ First Aid kit ▪ Drinking water ▪ 911 Air horn ▪ Spill containment supplies ▪ Air monitoring equipment ▪ Emergency decontamination supplies	Prior to use, ensure equipment is operational, calibrated according to operating manuals, and performing in accordance with required standards. General Site Safety (Daily)	▪ Ensure non-essential personnel observe general MEC hazards and understand the requirement to be escorted by qualified UXO Technicians when they are within an exclusion zone. ▪ Detection Equipment Refresher. ▪ General and local MEC hazards and precautions. ▪ Daily Tailgate Safety Meeting. ▪ Review “MEC Detection” AHA. ▪ Hazardous Waste Operations (HAZWOPER) Certification (40-hour, 8-hour). ▪ OSHA Supervisory (Required for Managers and Supervisors). ▪ First Aid and CPR (At least two employees). ▪ SSHP review and sign-off.

Project: McClellan		**Location: Anniston, Alabama**
Activity: General Site Work		**Approved by: Richard Gioscia**
PRINCIPAL STEPS	**POTENTIAL SAFETY/HEALTH HAZARDS**	**RECOMMENDED CONTROLS**
Note: This Activity Hazard Analysis covers the common hazards and controls that may be applicable during MEC demolition activities at the McClellan project site. General site environmental conditions such as weather conditions, thermal stressors, and biological hazards are covered in detail in Section 2.0 of the SSHP. They will be addressed on the AHAs only if the activity itself poses unique or exacerbated hazards or exposures.		
Detonation of MEC	Accidental Detonation of MEC Slips, Trips, and Falls	▪ Personnel wear modified level D PPE, Review Disposal plan, standard MEC and General EOD safety precautions for demo procedures. Review applicable item ID and disposal information. ▪ Demolition operations are to be suspended during electrical storms or other severe weather. ▪ No smoking, except in designated areas ▪ Personnel will remain up-wind of the demolition site during demolition operations. ▪ If possible, MEC will be moved from the area to a safe disposal area.
Handling of demolition explosives: ▪ Blasting caps ▪ Initiators ▪ Time Fuze ▪ Explosives ▪ Ordnance Items	Accidental Detonation of MEC	▪ Observe MEC safety precautions. Minimize personnel exposure to the MEC. Personnel will wear gloves when handling ordnance. ▪ No smoking, except in designated areas.

Attachment 3 - SITE LAYOUT PLAN AND WORK ZONES

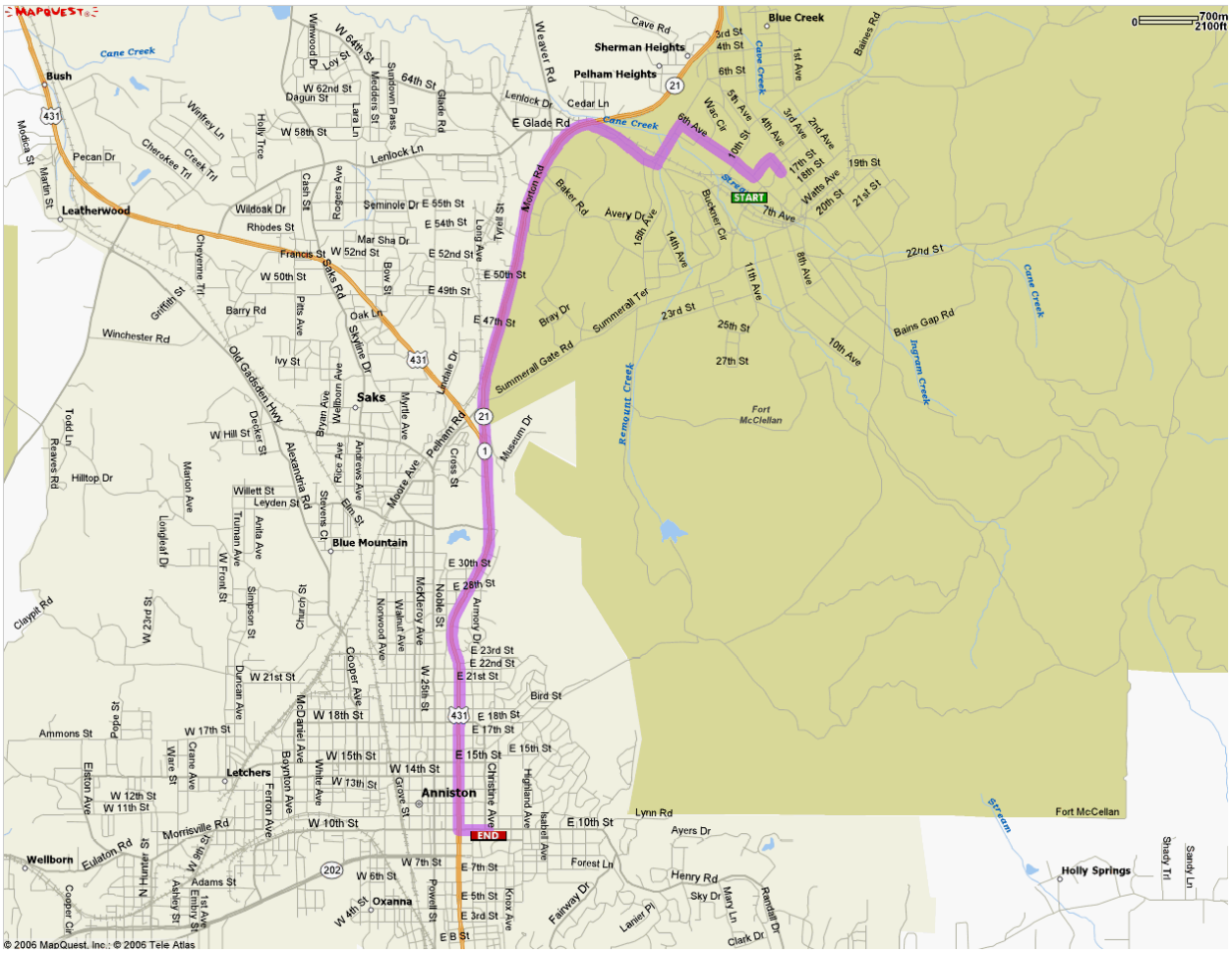
Due to the nature of this project, ECC will establish exclusion zones each day in the work area(s). Site maps are located in Appendix A of the Work Plan.

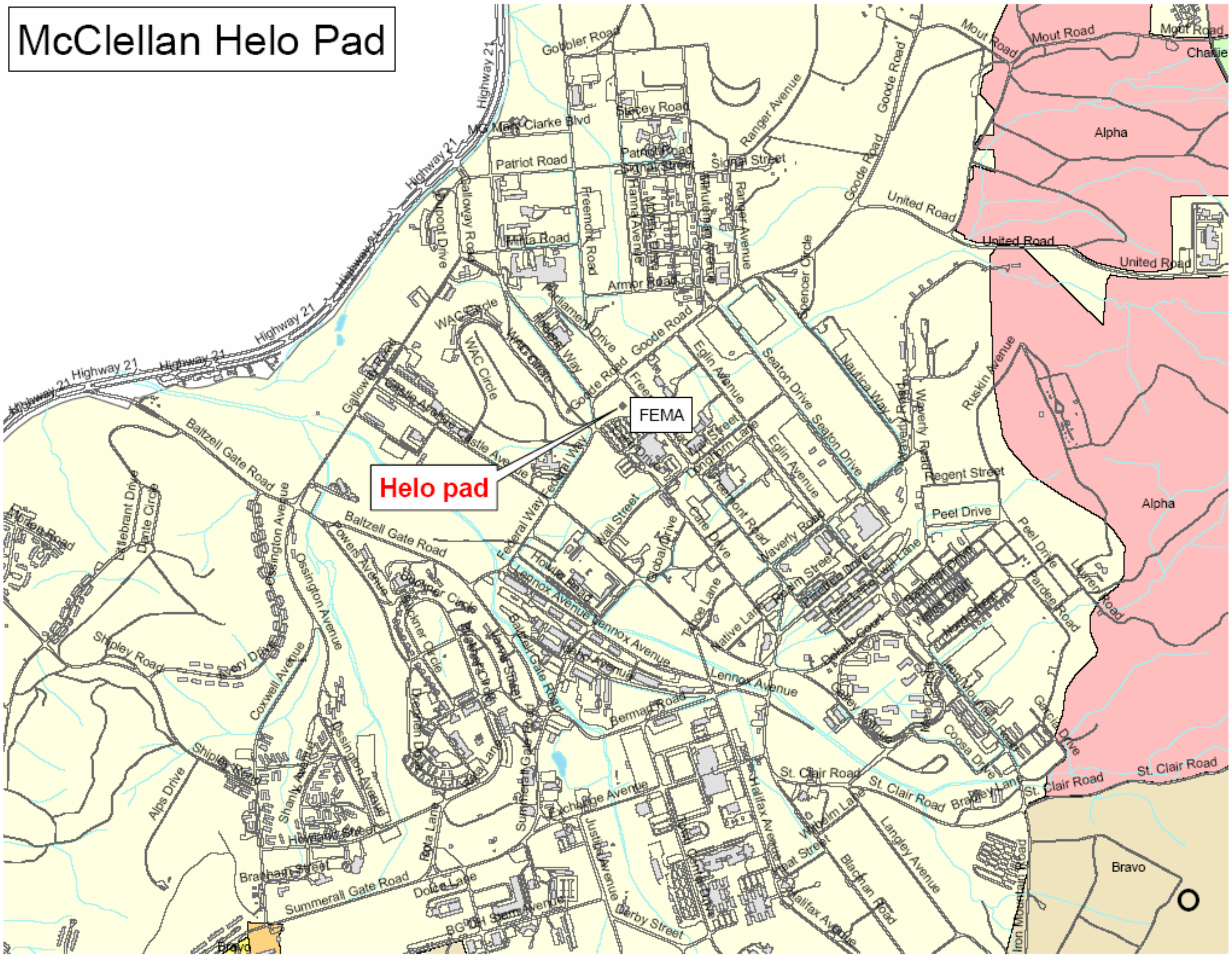
Attachment 4 – EMERGENCY CONTACTS & HOSPITAL ROUTE MAP

In case of an emergency, dial 911.

Contact		Telephone Number
•	Medical Facilities: Regional Medical Center	256-235-5121
•	Ambulance: Anniston EMS	256-237-8572
•	Anniston Fire Department	256-231-7644
•	Police	911 or 256-238-1800
•	Poison Control Center	1-800-222-1222
•	Technical Escort Unit	410-436-8534
•	Corporate HSM – Rich Gioscia	303-898-8859
•	ADEM: LaBarron Rudolph	334-270-5646
•	ECC Project Manager - Jeff Viebrock	417-268-7067
•	ECC Program Manager - Doug Lamothe	865-414-1475
•	Program UXO Safety Officer - John Bowles	757-373-4798

From the Baltzell Gate turn left (south) onto Hwy 21, go 5.1 mi and turn left (east) onto East 10th Street. Go to 400 East 10th Street to the Regional Medical Center




McClellan Helo Pad
FEMA
Helo pad
Alpha
Alpha
Bravo
Highway 21
Baltzell Gate Road
Summerall Gate Road
St. Clair Road
United Road
Mout Road

Attachment 5 – LISTING OF STANDARD OPERATING PROCEDURES

Project applicable SOPs are provided in Appendix F of the Work Plan.

ECC CORPORATE HEALTH & SAFETY PROGRAM SOPs

SOP HS-001	Safety Policy
SOP HS-002	Acknowledgements
SOP HS-003	Injury & Illness Prevention Program
SOP HS-004	General Information and Responsibility
SOP HS-005	Hazard Evaluation Analysis
SOP HS-006	Air Monitoring Program
SOP HS-007	Hazard Communication Program
SOP HS-008	Employee Safety Training Program
SOP HS-009	Medical Surveillance Program
SOP HS-010	Site Control Program
SOP HS-011	Respiratory Protection Program
SOP HS-012	**Personal Protective Equipment Program**
SOP HS-013	Decontamination Program
SOP HS-014	Hearing Conservation Program
SOP HS-015	**Cold Stress Monitoring Program**
SOP HS-016	**Heat Stress Monitoring Program**
SOP HS-017	Confined Space Entry Program
SOP HS-018	**Excavation and Trenching Safety Program**
SOP HS-019	UST and AST Removal Program
SOP HS-020	**Electrical Safety Program**
SOP HS-021	Lockout and Tagout Program
SOP HS-022	Vehicle and Heavy Equipment Safety Program
SOP HS-023	Hoisting and Crane Operation Program
SOP HS-024	Fall Protection Program
SOP HS-025	Emergency Response and Contingency Program
SOP HS-026	Spill and Discharge Control Program
SOP HS-027	Fire Protection Program
SOP HS-028	**Unexploded Ordnance (UXO) Safety Program**
SOP HS-029	Asbestos Abatement Program
SOP HS-030	Radiation Protection Program
SOP HS-031	Chemical Hygiene Program
SOP HS-032	Diving Management Plan
SOP HS-033	Driver Fleet Safety Program
SOP HS-034	Biological Hazard Program
SOP HS-035	Blood Borne Pathogen Program
SOP HS-036	**Drug and Alcohol Program**
SOP HS-037	OSHA Record Keeping Program
SOP HS-038	**Employee Safety Incentive Program**
SOP HS-039	Hand and Power Tools Safety Program
SOP HS-040	Back Injury Prevention Program
SOP HS-041	Lead Remediation Operating Procedures
SOP HS-042	Disciplinary Procedures
SOP HS-043	Near Miss Reporting
SOP HS-044	Repeat Vehicle Accident Offender Program
SOP HS-045	Accident Investigation Reporting

ECC UXO General SOPs

1-1	SOP Program and Index
1-2	UXO Work Plan Development
1-3	UXO SSHP Development
1-4	Abbreviated SSHP Development
1-5	Explosive Management Plan
1-6	Technical Management Plan
1-7	Explosive Siting Plan
8-8	Property Management
8-9	Geophysical Plan
1-10	Location Surveys and Mapping Plan
1-11	Work, Data, and Cost Management Plan
1-12	Sampling and Analysis Plan
1-13	Environment Protection Plan
1-14	Investigative Derived Waste Plan
1-15	Data Quality Objectives (OE Planning)
1-16	Project Start-up Checklist
1-17	Project Kick-Off Meeting
1-18	Site Visit

ECC UXO Safety SOPs

2-1	UXO Safety Briefing
2-2	Medical Emergencies
2-3	Hazard Marking System
2-4	Fire Protection
2-5	HAZMAT Emergency Response
2-6	Personnel Protection Equipment
2-7	Accident/Incident Reporting
2-8	Training Program
2-9	Poison Oak Procedures
2-10	Hantavirus
2-11	Respiratory Protection Equipment
2-12	Hazard Communication
2-13	Confined Space

Attachment 6 – Supplemental Plans

Supplemental plans will not be required by this task order.

Attachment 7 – RESUMES

Resumes are presented in Appendix E of the Work Plan.

Attachment 8 – Site Safety and Health Forms

The following forms are to be used as instructed by the UXOSO during operations at McClellan:

- AHA Training Documentation Form
- APP Compliance Agreement Form
- Health and Safety Site Inspection Form
- First Aid Log
- Daily Safety Meeting Sign-In Sheet
- Medical Data Sheet

	ECC	ACTIVITY HAZARD ANALYSIS TRAINING DOCUMENTATION

Project Name: _____

Activity Hazard Analysis Review AHA Title:

By signing below, I agree to the following:

- I agree to follow the work steps and implement the controls as written.
- I agree to stop work when conditions or hazards change or when I encounter unexpected conditions during the execution of work, or when work cannot be performed as written, or instructions become unclear during execution.
- I am qualified and fit to perform the work.

Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)
Worker (Signature / Date)	Worker (Signature / Date)

	Environmental Chemical Corporation	**ACCIDENT PREVENTION PLAN Compliance Agreement Form**

PROJECT NAME: _____

You are entering a hazardous waste/construction site. Unprotected exposure to hazardous chemicals can cause mild to serious health effects. Heavy equipment operations and other inherently dangerous work is underway. You will remain with your designated escort at all times and follow their instructions for your safety and the safety of others. Minimum requirement for personal protective equipment is Level D protection (hard hat, ANSI-approved safety footwear, and safety glasses). Equipment issued must be returned prior to leaving the site.

VISITOR'S CERTIFICATION

_____I acknowledge that I have been advised of the dangers present at this hazardous waste site facility. I agree to immediately follow all directions given by my escort on site. I also certify that I do relieve ECC, the U.S. Government, the applicable state in which the project site is located, their officers, employees, and agents of all liability of all consequences raising from and related to the potential hazards associated with entry to this site.

PRINT NAME **SIGNATURE** **DATE**

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

ENVIRONMENTAL CHEMICAL CORPORATION	HEALTH AND SAFETY SITE INSPECTION FORM

Project:	**Date:**
Area(s) Inspected:	
Inspection Type: ☐ Daily ☐ Weekly ☐ Monthly ☐ Corporate ☐ Other: _____	

Inspector's Name	**Affiliation**	**Inspector's Name**	**Affiliation**

CATEGORY	**Freq.**	**Observations / Recommendations (N/A if not applicable)**	**Corrective Action Completed (Name/Date)**
EQUIPMENT			
Daily Inspection Checklists (Heavy Equipment)	W		
Hand Portable Tools Inspections	W		
Machine/Equipment Guarding	W		
GFCI in use	W		
3-prong ext. cords, not damaged	W		
FALL PROTECTION/SCAFFOLDING Must be inspected daily when activity is ongoing.			
Anchorage, body belt, lanyard	D		
Less than 6 feet of freefall	D		
Guardrails	D		
Protection from falling objects	D		
Daily scaffold inspections	D		
HOISTING & RIGGING Must be inspected daily when activity is ongoing.			
Ordinary/Critical Lift Forms Used	D		
Competent Person Signoff	D		
Condition of Chains / Slings	D		
Properly Rated Chains / Slings	D		
EXCAVATION & TRENCHING ACTIVITIES Must be inspected daily when activity is ongoing. See detailed "Trench/Excavation Inspection"			
Excavation Control Measures	D		

CATEGORY	Freq.	Observations / Recommendations (N/A if not applicable)	Corrective Action Completed (Name/Date)
Inspections by Competent Person	D		
Entrance / Exit / Ladders	D		
Air Monitoring	D		
Warning Signs / Fences in place	D		
Shoring / Shielding	D		
Spoil Piles 2 Feet from Edge	D		
HAZARD CONTROLS			
Lockout/Tagout Systems	As needed		
Site Control (EZ, CRZ, SZ)	D		
Decontamination Procedures (equip and personnel)	W		
Safety Awareness/Warning Signage	M		
Site Security	M		
PERSONAL PROTECTIVE EQUIPMENT			
Hearing Protection	D		
Respiratory Protection / Storage	D		
Head Protection	D		
Foot Protection	D		
Eye Protection	D		
Hand Protection	D		
Body Protection	D		
MATERIALS			
Storing of Compressed Gases	W		
Storing of Flammable Liquids	W		
Area Free of Combustibles	W		
Housekeeping of Storage Room	W		
EMERGENCY SYSTEMS			
Fire Extinguisher Availability / Inspections	M		
Eye Wash & Shower	W		
First Aid Kits, First Aid Log	W		
Spill Containment Supplies	M		
Emergency Instructions	M		
Appropriate Communications Available	W		
GENERAL WORKPLACE			
Housekeeping	W		
Noise Exposure	W		
Lighting/Illumination	M		

CATEGORY	Freq.	Observations / Recommendations (N/A if not applicable)	Corrective Action Completed (Name/Date)
Field/Office Ergonomics	M		
Roadways / Traffic Control	W		
Sanitation / Toilet / Wash Facilities	M		
HAZARD COMMUNICATION			
List of Hazardous Materials	M		
Hazardous Materials Labeling	M		
Material Safety Data Sheets	M		
Employee Training	M		
RECORDKEEPING			
OSHA Postings	M		
Employee Safety Training	W		
Medical Surveillance Program	M		
Site Safety & Health Plan Sign-off	M		
Exposure Monitoring Records	M		
Daily Tailgate Safety Meetings	W		
Visitors Sign-Off	M		
Accident Investigation Reports	M		
Hazwoper Training Documentation	M		
Workers' Compensation Claims (Please indicate claimant's name/date of incident)	M		
OTHER			
Safety Field Logbooks	W		

Note: This form is only a guide for evaluation of workplace hazards. It is not intended to be inclusive, and inspection frequency may vary based on job conditions. Use of the form is optional for Daily Inspections. Corrective actions taken during Daily Inspections should be noted in the safety field logbook. Monthly includes weekly, weekly includes daily.

	FIRST AID LOG
	ENVIRONMENTAL CHEMICAL CORPORATION
	Project:

DATE	NAME	NATURE OF INJURY	WORK RELATED? Y/N	FIRST AID ADMINISTERED

ECC	**Environmental Chemical Corporation**	**DAILY SAFETY MEETING SIGN-IN SHEET**

Date: _____ Project Name/Location: _____

Company: _____ Person Conducting Briefing: _____

1. AWARENESS (e.g., special EHS concerns, pollution prevention, recent incidents, etc.):

2. OTHER ISSUES (HASP changes, new AHAs, attendee comments, etc.):

3. DISCUSSION OF DAILY ACTIVITIES/TASKS AND SAFETY MEASURES TO BE USED:

4. ATTENDEES (Print Name):

	Environmental Chemical Corporation	**MEDICAL DATA SHEET**

This Medical Data Sheet should be completed by site personnel and kept in an accessible location during the length of project work. This data sheet is not a substitute for required medical surveillance or qualifications required for work at the site. Where possible, this data sheet should accompany personnel requiring medical assistance as a means of providing potentially important personal information to medical providers. Return completed form to project safety representative and update this medical data sheet as often as necessary to maintain its accuracy. This includes changes in medication, emergency contacts, or allergies and sensitivities.

This form may contain confidential information of a personal nature and must be treated/secured accordingly.

Name:		Date:
Address:		Age (optional):
		Height (optional):
Home Telephone:	Work Telephone:	Weight (optional):
Emergency Contact Name and Telephone Number:		
Medications Currently Taking: (both prescribed and over-the-counter medication)		
Known Allergies or Sensitivities (such as allergic reaction to bee stings, food allergies, penicillin):		
Other Significant Medical Alerts or Precautions:		
Name of Physician (if known):		Telephone No.:
Project:		Supervisor Name:
Task:		Supervisor Title:
Company/Department:		Telephone Number: